PROFESSIONAL DIGITAL TWO-WAY RADIO

MOTOTRBO™ SL7550 & SL7590 PORTABLES USER GUIDE

Declaration of Conformity

This declaration is applicable to your radio only if your radio is labeled with the FCC logo shown below.

Declaration of Conformity

Per FCC CFR 47 Part 2 Section 2.1077(a)

Responsible Party

Name: Motorola Solutions, Inc.

Address: 1303 East Algonquin Road, Schaumburg, IL 60196-1078, U.S.A.

Phone Number: 1-800-927-2744

Hereby declares that the product:

Model Name: **SL7550 & SL7590**

conforms to the following regulations:

FCC Part 15, subpart B, section 15.107(a), 15.107(d) and section 15.109(a)

Class B Digital Device

As a personal computer peripheral, this device complies with Part 15 of the FCC Rules. This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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Notes

Important Safety Information

RF Energy Exposure and Product Safety Guide for Portable Two-Way Radios

ATTENTION!

This radio is restricted to Occupational use only. Before using the radio, read the RF Energy Exposure and Product Safety Guide for Portable Two-Way Radios which contains important operating instructions for safe usage and RF energy awareness and control for Compliance with applicable standards and Regulations.

For a list of Motorola-approved antennas, batteries, and other accessories, visit the following website:

http://www.motorolasolutions.com

Any modification to this device, not expressly authorized by Motorola, may void the user's authority to operate this device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter has been approved by Industry Canada to operate with Motorola-approved antenna with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Software Version

All the features described in the following sections are supported by the radio's software version **R02.06.20** or later.

See ***Checking the Firmware Version and Codeplug Version*** on page 124 to determine your radio's software version.

Check with your dealer or system administrator for more details of all the features supported.

Computer Software Copyrights

The Motorola products described in this manual may include copyrighted Motorola computer programs stored in semiconductor memories or other media. Laws in the United States and other countries preserve for Motorola certain exclusive rights for copyrighted computer programs including, but not limited to, the exclusive right to copy or reproduce in any form the copyrighted computer program. Accordingly, any copyrighted Motorola computer programs contained in the Motorola products described in this manual may not be copied, reproduced, modified, reverse-engineered, or distributed in any manner without the express written permission of Motorola. Furthermore, the purchase of Motorola products shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents or patent applications of Motorola, except for the normal non-exclusive license to use that arises by operation of law in the sale of a product.

The AMBE+2™ voice coding Technology embodied in this product is protected by intellectual property rights including patent rights, copyrights and trade secrets of Digital Voice Systems, Inc.

This voice coding Technology is licensed solely for use within this Communications Equipment. The user of this Technology is explicitly prohibited from attempting to decompile, reverse engineer, or disassemble the Object Code, or in any other way convert the Object Code into a human-readable form.

U.S. Pat. Nos. #5,870,405, #5,826,222, #5,754,974, #5,701,390, #5,715,365, #5,649,050, #5,630,011, #5,581,656, #5,517,511, #5,491,772, #5,247,579, #5,226,084 and #5,195,166.

Handling Precautions

The MOTOTRBO Series Digital Portable radio meets IP54 specifications, allowing the radio to withstand adverse field conditions such as being exposed to water or dust.

- Keep your radio clean and exposure to water should be avoided to help ensure proper functionality and performance.
- To clean the exterior surfaces of the radio, use a diluted solution of mild dishwashing detergent and fresh water (i.e. one teaspoon of detergent to one gallon of water).
- These surfaces should be cleaned whenever a periodic visual inspection reveals the presence of smudges, grease, and/or grime.

The effects of certain chemicals and their vapors can have harmful results on certain plastics. Avoid using aerosol sprays, tuner cleaners and other chemicals.

RF Energy Exposure and Product Safety Guidelines and Instructions

For more detailed proper usage instructions, warnings and cautions, refer to the RF Energy Exposure and Product Safety Guide for Portable Two-Way Radios booklet.

- To ensure a comfortable audio level and compliance with RF energy exposure limits, do not hold the radio against the ear or alongside the head.

- Use only in front of the face or with Motorola Solutions approved audio accessories and carry cases to ensure compliance with RF energy exposure limits.

Notes

Getting Started

The following topics are covered:

♦ How to Use This Guide 8
♦ What Your Dealer/System Administrator Can Tell You..... 8

How to Use This Guide

This User Guide covers the basic operation of the MOTOTRBO Portables.

However, your dealer or system administrator may have customized your radio for your specific needs. Check with your dealer or system administrator for more information.

For features that are available in **both** conventional Analog and Digital modes, **no** icon is shown.

For features that are available in a conventional multi-site mode, see **IP Site Connect** on page 19 for more information.

Selected features are **also** available on the single-site trunking mode, **Capacity Plus**. See **Capacity Plus** on page 19 for more information.

Selected features are **also** available in the multi-site trunking mode, **Linked Capacity Plus**. See **Linked Capacity Plus** on page 20 for more information.

What Your Dealer/System Administrator Can Tell You

You can consult your dealer or system administrator about the following:

- Is your radio programmed with any preset conventional channels?
- Which buttons have been programmed to access other features?
- What optional accessories may suit your needs?
- What are the best radio usage practices for effective communication?
- What maintenance procedures will help promote longer radio life?

Preparing Your Radio for Use

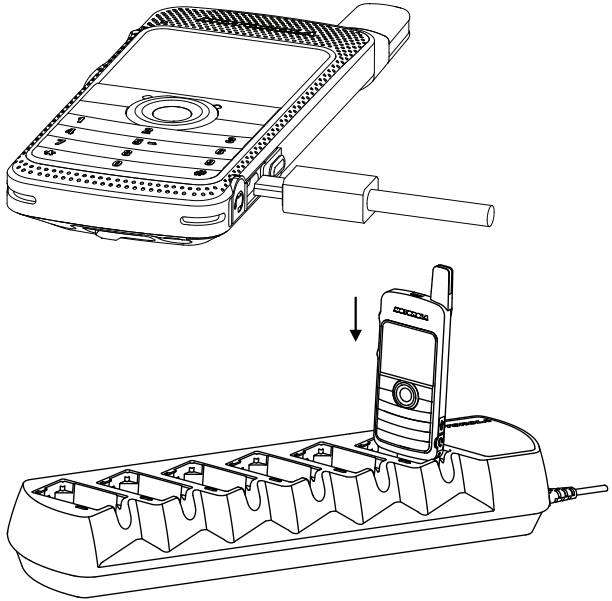
The following topics are covered:

♦ Charging the Battery..... 9
♦ Attaching the Battery 10
♦ Attaching the Earpiece/Audio Accessory..... 10
♦ Powering Up the Radio 11
♦ Adjusting the Volume 11

Charging the Battery

Your radio is powered by a Lithium-Ion (Li-Ion) battery. To avoid damage and comply with warranty terms, charge the battery using a Motorola charger *exactly* as described in the charger user guide. All chargers can charge only Motorola authorized batteries. Other batteries may not charge. It is recommended your radio remains powered off while charging.

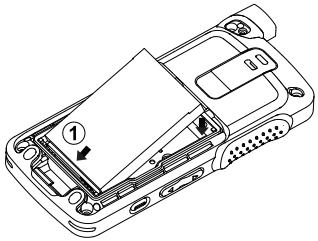
Charge a new battery 14 to 16 hours before initial use for best performance. Prior to charging a battery with the radio, it is recommended to turn the radio off. Batteries charge best at room temperature.



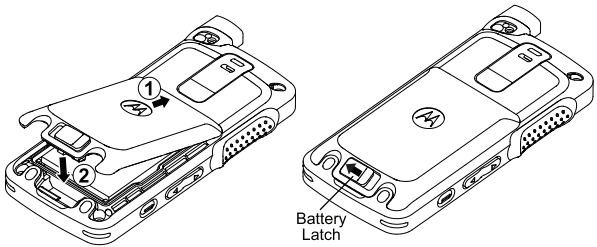
The battery charging icon will be displayed until the user unplugs the USB cable or takes the radio out of the charger.

Attaching the Battery

1 Align the battery contacts with the contacts inside the battery compartment. Insert the contact side of the battery first. Gently push the battery into place.



2 To attach battery cover, align it in place and slide the battery latch until it snaps into place. Slide battery latch into lock position.



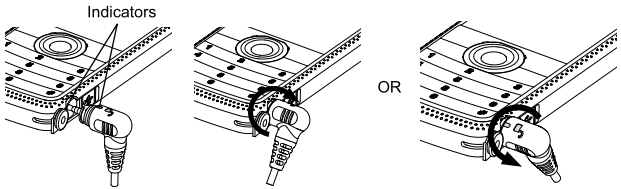
Attaching the Earpiece/Audio Accessory

The audio jack is located on the antenna side of the radio. It is used to connect accessories to the radio.

1 Lift up the flap of the Audio Jack cover. Align the indicators on both the connector and housing, then push until it fits in properly.

2 Rotate connector clockwise or counterclockwise to lock.

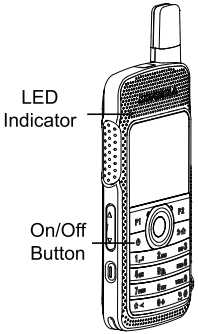
3 To unlock, rotate until the indicators on both the connector and housing are aligned. Pull out the connector gently to disconnect from radio.



Powering Up the Radio

Press the **On/Off** button on the front keypad. You see a welcome message or welcome image.

The LED blinks green.

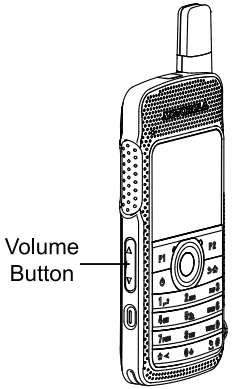


Adjusting the Volume

To increase the volume, push the **Volume Button** up.

To decrease the volume, push the volume button down.

Note: Your radio can be programmed to have a minimum volume offset where the volume level cannot be lowered past the programmed minimum volume. Check with your dealer or system administrator for more information.

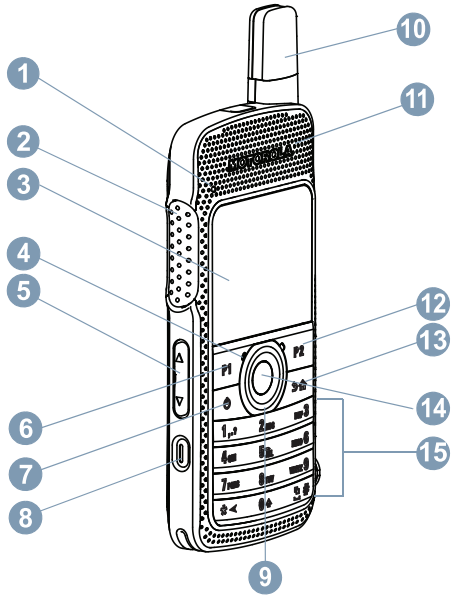


Identifying Radio Controls

The following topics are covered:

♦ Radio Controls 12
♦ Programmable Buttons 13
♦ Using the 4-Way Navigation Disc 15
♦ Accessing the Programmed Functions 16
♦ Using the Keypad 17
♦ Push-To-Talk (PTT) Button 18
♦ IP Site Connect 19
♦ Capacity Plus 19
♦ Linked Capacity Plus 20

Radio Controls



1. LED Indicator
2. Push-to-Talk (**PTT**) Button
3. Display
4. Microphone
5. Volume Button

6. Front Button P1
7. On/Off Button
8. Emergency Button
9. 4–way Navigation Disc
10. Antenna
11. Speaker
12. Front Button P2
13. Back/Home Button
14. Menu/OK Button
15. Keypad

Programmable Buttons

Your dealer can program the programmable buttons as shortcuts to **radio functions** or **preset channels/groups** depending on the duration of a button press:

- Short press – Pressing and releasing rapidly.
- Long press – Pressing and holding for the programmed duration.
- Hold down – Keeping the button pressed.

These buttons are programmable.

Note: The programmed duration of a button press is applicable for all assignable radio/utility functions or settings. See **Emergency Operation** on page 67 for more information on the programmed duration of the Emergency button.

Assignable Radio Functions

Actions — A programmable button to access a CPS programmable action list.

Audio Routing — Toggles audio routing between internal and external speakers.

Bluetooth® Audio Switch — Toggles audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Contacts — Provides direct access to the Contacts list.

Call Alert — Provides direct access to the contacts list for you to select a contact to whom a Call Alert can be sent.

Call Log — Selects the call log list.

Channel Announcement — Plays zone and channel announcement voice messages for the current channel.

Display Radio Alias — Shows radio display name.

Emergency — Depending on the programming, initiates or cancels an emergency alarm or call.

Intelligent Audio — Toggles intelligent audio on or off.

Job Tickets — Allows the user to view and act upon job tickets.

Manual Dial — Depending on the programming, initiates a Private or Phone Call by keying in any subscriber ID or phone number.

Manual Site Roam — Starts the manual site search.

Mic AGC On/Off — Toggles the internal microphone automatic gain control (AGC) on or off.

Monitor — Monitors a selected channel for activity.

Notifications — Provides direct access to the Notifications list.

Nuisance Channel Delete — Temporarily removes an unwanted channel, except for the Selected Channel, from the scan list. The Selected Channel refers to the user's selected zone/channel combination from which scan is initiated.

One Touch Access — Directly initiates a predefined Private, Phone or Group Call, a Call Alert or a Quick Text message.

Option Board Feature — Toggles option board feature(s) on or off for option board-enabled channels.

Permanent Monitor — Monitors a selected channel for all radio traffic until function is disabled.

Phone— Provides direct access to the Phone Contacts list

Power Battery Indicator — Displays the current status of the battery level.

Privacy — Toggles privacy on or off.

Radio Alias and ID — Provides radio alias and ID.

Radio Check — Determines if a radio is active in a system.

Radio Enable — Allows a target radio to be remotely enabled.

Radio Disable — Allows a target radio to be remotely disabled.

Remote Monitor — Turns on the microphone of a target radio without it giving any indicators.

Repeater/Talkaround — Toggles between using a repeater and communicating directly with another radio.

Ring Alert Type — Provides direct access to the Ring Alert Type Setting.

Scan — Toggles scan on or off.

Site Info — Displays current Linked Capacity Plus site name and ID. Plays site announcement voice messages for the current site (this function is unavailable when Voice Announcement is disabled).

Site Lock On/Off — Toggles the automatic site roam on or off.

Telemetry Control — Controls the Output Pin on a local or remote radio.

Not applicable in Capacity Plus and Linked Capacity Plus

Text Message — Selects the text message menu.

Transmit Interrupt Remote Dekey — Stops the transmission of a remote monitored radio without giving any indicators, or an ongoing interruptible call to free the channel.

Unassigned — Unassigned programmable button.

Voice Announcement On/Off — Toggles voice announcement on or off.

Voice Operating Transmission (VOX) — Toggles VOX on or off.

Zone — Allows selection from a list of zones.

Assignable Settings or Utility Functions

All Tones/Alerts — Toggles all tones and alerts on or off.

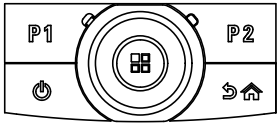
Brightness — Allows brightness to be set via the manual brightness mode or auto brightness control via the radio's photo sensor.

Display Mode — Toggles the day/night display mode on or off.

Wallpaper — Displayed on home screen.

Using the 4-Way Navigation Disc

You can use the 4-way navigation disc,



, to scroll through options, increase/decrease values, and navigate vertically.

Category	Direction	
	▲ or ▼	◀ or ▶
Menu	Vertical Navigation	-
Lists	Vertical Navigation	-
View Details	Vertical Navigation	Previous/Next Item
Numeric Values	Increase/Decrease	-

You can use the 4-way navigation disc, , as a number, alias, or free form text editor.

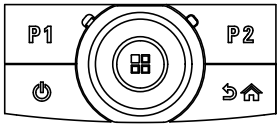
The ▶ button can be used to change the channels in the home screen.

Press to select your desired channel.

Editor Category	Direction	
	▲ or ▼	◀ or ▶
Number	-	-
Alias	-	Move cursor one character left/right.
Free Form Text	Move cursor up/down	Move cursor one character left/right.

Accessing the Programmed Functions

You can access various radio functions through one of the following ways:



- A short or long press of the relevant programmable buttons.
- Use the 4-Way Navigation Disc as follows:

1 Press ⊞ to access the menu. Press the appropriate Menu Scroll button (▲ or ▼) to access the menu functions.

2 To select a function or enter a sub-menu, press the ⊞ button.

3 To go back one menu level, or to return to the previous screen, press the ↩⌂ button. Long press the ↩⌂ button to return to the Home screen.

Note: Your radio automatically exits the menu after a period of inactivity and returns to your Home screen.

Using the Keypad

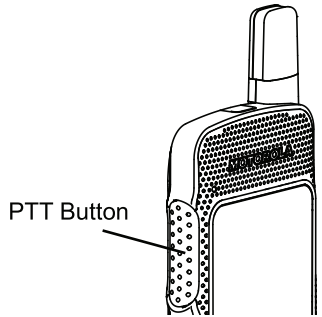
You can use the 3 x 4 alphanumeric keypad to access your radio's features. You can use the keypad to enter subscriber aliases or IDs, and text messages. Many characters require that you press a key multiple times. The next table shows the number of times a key needs to be pressed to generate the required character.

Key	Number of Times Key is Pressed												
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
1 ,.?	1	.	,	?	!	@	&	'	%	—	:	*	#
2 ABC	A	B	C	2									
3 DEF	D	E	F	3									
4 GHI	G	H	I	4									
5 JKL	J	K	L	5									
6 MNO	M	N	O	6									
7 PQRS	P	Q	R	S	7								
8 TUV	T	U	V	8									

Key	Number of Times Key is Pressed												
	1	2	3	4	5	6	7	8	9	10	11	12	13
9 wxyz	W	X	Y	8									
0 ⇧	0	**Note:** Press to enter “0” and long press to activate the CAPS lock. Another long press to turn off the CAPS lock.											
*≺	* or del	**Note:** Press during text entry to delete the character. Press during numeric entry to enter a “*”.											
#⎵	# or space	**Note:** Press during text entry to insert a space. Press during numeric entry to enter a “#”. Long press to change text entry method.											

Push-To-Talk (PTT) Button

The PTT button on the side of the radio serves two basic purposes:



- While a call is in progress, the PTT button allows the radio to transmit to other radios in the call.

Press and hold down PTT button to talk. Release the PTT button to listen.

The microphone is activated when the PTT button is pressed.

- While a call is not in progress, the PTT button is used to make a new call (see **Making a Radio Call** on page 33).

If the Talk Permit Tone (see **Turning the Talk Permit Tone On or Off** on page 109) is enabled, wait until the short alert tone ends before talking.

During a call, if the Channel Free Indication feature is enabled on your radio (programmed by your dealer), you will hear a short alert tone the moment the target radio (the radio that is receiving your call) releases the PTT button, indicating the channel is free for you to respond.

You will also hear a continuous talk prohibit tone, if your call is interrupted, indicating that you should release the PTT button, for example when the radio receives an Emergency Call.

IP Site Connect

This feature allows your radio to extend conventional communication beyond the reach of a single site, by connecting to different available sites which are connected via an Internet Protocol (IP) network.

When the radio moves out of range from one site and into the range of another, it connects to the new site's repeater to send or receive calls/data transmissions. Depending on your settings, this is done automatically or manually.

If the radio is set to do this automatically, it scans through all available sites when the signal from the current site is weak or when the radio is unable to detect any signal from the current site. It then locks on to the repeater with the strongest Received Signal Strength Indicator (RSSI) value.

In a manual site search, the radio searches for the next site in the roam list that is currently in range (but which may not have the strongest signal) and locks on to it.

Note: Each channel can only have either Scan or Roam enabled, not both at the same time.

Channels with this feature enabled can be added to a particular roam list. The radio searches the channel(s) in the roam list during the automatic roam operation to locate the best site.

A roam list supports a maximum of 16 channels (including the Selected Channel).

Note: You cannot manually add or delete an entry to the roam list. Check with your dealer or system administrator for more information.

Capacity Plus

Capacity Plus is a single-site trunking configuration of the MOTOTRBO radio system, which uses a pool of channels to support hundreds of users and up to 254 Groups. This feature allows your radio to efficiently utilize the available number of programmed channels while in Repeater Mode.

You hear a negative indicator tone if you try to access a feature not applicable to Capacity Plus via a programmable button press.

Your radio also has features that are available in conventional digital mode, IP Site Connect, Capacity Plus and Linked Capacity Plus. However, the minor differences in the way each feature works does **NOT** affect the performance of your radio.

Check with your dealer or system administrator for more information on this configuration.

Linked Capacity Plus

Linked Capacity Plus is a multi-site multi-channel trunking configuration of the MOTOTRBO radio system, combining the best of both Capacity Plus and IP Site Connect configurations.

Linked Capacity Plus allows your radio to extend trunking communication beyond the reach of a single site, by connecting to different available sites which are connected via an Internet Protocol (IP) network. It also provides an increase in capacity by efficiently utilizing the combined available number of programmed channels supported by each of the available sites.

When the radio moves out of range from one site and into the range of another, it connects to the new site's repeater to send or receive calls/data transmissions. Depending on your settings, this is done automatically or manually.

If the radio is set to do this automatically, it scans through all available sites when the signal from the current site is weak or when the radio is unable to detect any signal from the current site. It then locks on to the repeater with the strongest Received Signal Strength Indicator (RSSI) value.

In a manual site search, the radio searches for the next site in the roam list that is currently in range (but which may not have the strongest signal) and locks on to it.

Any channel with Linked Capacity Plus enabled can be added to a particular roam list. The radio searches these channels during the automatic roam operation to locate the best site.

Note: You cannot manually add or delete an entry to the roam list. Check with your dealer or system administrator for more information.

Similar to Capacity Plus, icons of features not applicable to Linked Capacity Plus are not available in the menu. You hear a negative indicator tone if you try to access a feature not applicable to Linked Capacity Plus via a programmable button press.

Check with your dealer or system administrator for more information on this configuration.

Identifying Status Indicators

The following topics are covered:

♦ Display Icons 21
♦ Call Icons 23
♦ Utilities Icons 24
♦ Mini Notice Icons 24
♦ Sent Item Icons 24
♦ Job Tickets Icons 25
♦ LED Indicator 25
♦ Audio Tones 26
♦ Indicator Tones 27

Display Icons

Your radio has a 2 inch landscape display with QVGA (Quarter Video Graphics Array) 16-bit color resolution.

The following are icons that appear on the radio's display. Icons are displayed arranged left-most in order of appearance/usage.

	Received Signal Strength Indicator (RSSI) The number of bars displayed represents the radio signal strength. Four bars indicate the strongest signal. This icon is only displayed while receiving.
	Monitor Selected channel is being monitored.
	Bluetooth Not Connected The Bluetooth feature is enabled but there is no remote Bluetooth device connected.
	Bluetooth Connected The Bluetooth feature is enabled. The icon stays lit when a remote Bluetooth device is connected.
	Bluetooth Discoverable The Bluetooth feature is enabled and radio is in discoverable mode.
	High Volume Data Radio is receiving high volume data and channel is busy.
	Job Ticket Notification Notification List has items to review.

	Option Board The Option Board is enabled. (Option board enabled models only)
	Option Board Non-Function The Option Board is disabled.
	Over-the-Air Programming Delay Timer Indicates time left before automatic restart of radio.
	Scan and Flexible Receive List[1,2] Scan feature and flexible receive list feature are enabled.
	Scan- Priority 1[1,2] Radio detects activity on channel/group designated as Priority 1.
	Scan- Priority 2[1,2] Radio detects activity on channel/group designated as Priority 2.
	Emergency Radio is in Emergency mode.

	Secure The Privacy feature is enabled.
	Unsecure The Privacy feature is disabled.
	Site Roaming[1] The site roaming feature is enabled.
	Talkaround[1,2] In the absence of a repeater, radio is currently configured for direct radio to radio communication.
	Battery The number of bars (0 – 4) shown indicates the charge remaining in the battery. Blinks when the battery is low.
	Battery Discharging Status Shows battery discharging status.
	All Tones Disabled No ring tones available.

[1] *Not applicable in Capacity Plus*
[2] *Not applicable in Linked Capacity Plus*

	Call Log Radio call log.
	Contact Radio contact is available.
	Message Incoming message.
	Silent Ring Silent ring mode is enabled.
	Ring Only Ringing mode is enabled.
	Vibrate Vibrate mode is enabled.
	Vibrate and Ring Vibrate and Ring mode is enabled.
	Keypad Keypad locked.

Call Icons

The following icons appear on the radio's display during a call. These icons also appear in the Contacts list to indicate ID type.

	Private Call Indicates a Private Call in progress.
	Group Call/All Call Indicates a Group Call or All Call in progress.
	Phone Call as Private Call Indicates a Phone Call as Private Call in progress. In the Contacts list, it indicates a phone alias (name) or ID (number).
	Phone Call as Group/All Call Indicates a Phone Call as Group/All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).

	Bluetooth PC Call Indicates a Bluetooth PC Call in progress. In the Contacts list, it indicates a Bluetooth PC Call alias (name) or ID (number).
	Private Call Alert In the Contacts list, it indicates a subscriber alias (name) or ID (number).

Utilities Icons

The following icons appear beside menu items on the radio's display that offer the following options.

	Checkbox (Empty) Indicates the option is not selected.
	Checkbox (Checked) Indicates the option is selected.
	Brightness Indicates the brightness level.
	Brightness Highlighted Highlights the brightness level.

Mini Notice Icons

The following icons appear momentarily on the radio's display after an action to perform task is taken.

	Successful Transmission (Positive) Successful action taken.
	Failed Transmission (Negative) Failed action taken.
	Transmission in Progress (Transitional) Transmitting. This is seen before indication for Successful Transmission or Failed Transmission.

Sent Item Icons

The following icons appear at the top right corner of the radio's display in the Sent Items folder.

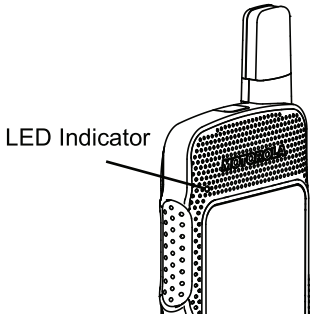
OR	**Sent Successfully** The text message is sent successfully.
OR	**Individual or Group Message Read** The text message has been read.
OR	**Individual or Group Message Unread** The text message has not been read.
OR	**Send Failed** The text message has not been sent.
OR	**In-Progress** • The text message to a group alias or ID is pending transmission. • The text message to a subscriber alias or ID is pending transmission, followed by waiting for acknowledgement.

Job Tickets Icons

	All Jobs Indicates all jobs listed.
	New Jobs Indicates new jobs.

LED Indicator

The LED indicator shows the operational status of your radio.



Blinking red	Radio is transmitting at low battery condition, receiving an emergency transmission or has failed the self-test upon powering up.
Solid yellow	Radio is monitoring a digital conventional channel or in Bluetooth Discoverable Mode. Also indicates fair battery charge when programmable button is pressed.
Blinking yellow	Radio is scanning for activity or receiving a Call Alert, or all local Linked Capacity Plus channels are busy.
Double blinking yellow	Radio is no longer connected to the repeater while in Capacity Plus or Linked Capacity Plus; all Capacity Plus or Linked Capacity Plus channels are currently busy . Auto Roaming is enabled, radio is actively searching for a new site, or radio has yet to respond to a group call alert. Also indicates that radio has yet to respond to a group call alert, or radio is locked.
Solid green	Radio is powering up or transmitting. Also indicates full charge of the battery when the programmable button is pressed.
Blinking green	Radio is powering up, receiving a non-privacy- enabled call or data, detecting activity, or retrieving Over-the-Air Programming transmissions over the air.
Rapidly blinking green	Radio is receiving a privacy-enabled call or data.

Note: While in conventional mode, when the LED blinks green, it indicates the radio detects activity over the air. Due to the nature of the digital protocol, this activity may or may not affect the radio's programmed channel.

For Capacity Plus and Linked Capacity Plus, there is no LED indication when the radio is detecting activity over the air.

Audio Tones

Alert tones provide you with audible indications of the radio’s status or the radio’s response to data received.

High pitched tone	Low pitched tone
Continuous Tone	A monotone sound. Sounds continuously until termination.
Periodic Tone	Sounds periodically depending on the duration set by the radio. Tone starts, stops, and repeats itself.
Repetitive Tone	A single tone that repeats itself until it is terminated by the user.
Momentary Tone	Sounds only once for a short period of time defined by the radio.

Indicator Tones

High pitched tone Low pitched tone

	Positive Indicator Tone
	Negative Indicator Tone

Making and Receiving Calls

The following topics are covered:

♦ Selecting a Zone 28
♦ Selecting a Channel 29
♦ Receiving and Responding to a Radio Call 30
♦ Making a Radio Call 33
♦ Stopping a Radio Call 40
♦ Talkaround 40
♦ Monitoring Features 41

Selecting a Zone

A zone is a group of channels. Your radio supports up to 250 zones, with a maximum of 160 channels per zone.

1 Access the Zone feature.

Radio Controls	Steps
Programmed Zone button	Press the programmed **Zone** button.
Radio menu	a. ⊞ to access the menu. b. ▲ or ▼ to Zone and press ⊞ to select.

The current zone is displayed and indicated by a ✓.

2 Select the required zone.

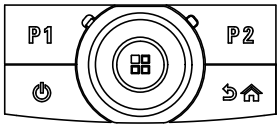
Radio Control	Steps
▲ or ▼	▲ or ▼ and scroll to the required zone.
Keypad	a. Enter the first character of the required zone. b. A blinking cursor appears allowing you to continue entering the subsequent characters of the required zone. **Note:** Press ◀ to move one space to the left. Press ▶ to move one space to the right. Press the * key to delete any unwanted characters. **Note:** The first line of the display shows the characters you keyed in. The second line shows a zone that matches what you have already keyed in. The alias search is case-insensitive. If there are two or more zones matches the keyed in characters, the radio displays the zone that is listed first in the zone list.

3 Press ⊞ to select.

The display shows `<Zone> Selected` momentarily and returns to the selected zone screen.

Selecting a Channel

Transmissions are sent and received on a channel. Depending on your radio's configuration, each channel may have been programmed differently to support different groups of users or supplied with different features. After selecting the relevant Zone, select the relevant channel you require to transmit or receive on.

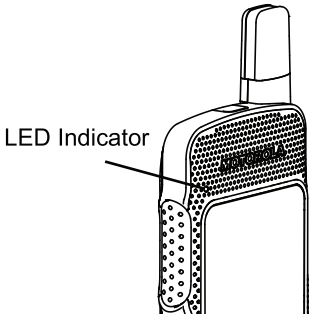


On the navigation disc, press ▶ to access the Channel List (while on the Home Screen). The active channel is displayed and indicated by a ✓

■ Receiving and Responding to a Radio Call

Once the channel, subscriber ID or group ID is displayed, you can proceed to receive and respond to calls.

The LED lights up solid green while the radio is transmitting and blinks green when the radio is receiving.



Note: The LED lights up solid green while the radio is transmitting and blinks green rapidly when the radio is receiving a privacy-enabled call . To unscramble a privacy-enabled call, your radio must have the same Privacy Key, OR the same Key Value and Key ID (programmed by your dealer), as the transmitting radio (the radio you are receiving the call from).

Note: See **Privacy** on page 90 for more information.

Receiving and Responding to a Group Call

To receive a call from a group of users, your radio must be configured as part of that group.

When you receive a Group Call (while on the Home screen), the LED blinks green. The first line of the display shows the caller alias, and the RSSI icon. The second line displays the group alias and the Group Call icon (in Digital mode only). Your radio unmutes and the incoming call sounds through the radio's speaker.

1 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.
- If the Voice Interrupt feature is enabled, press the **PTT** button to stop the current call from the transmitting radio and free the channel for you to talk/respond.

The LED lights up solid green.

2 Wait for one of the following tones to finish (if enabled), and speak clearly into the microphone.

- the Talk Permit Tone

- the **PTT** Sidetone

3 Release the **PTT** button to listen.

If there is no voice activity for a predetermined period of time, the call ends.

Note: See **Making a Group Call** on page 34 for details on making a Group Call.

Note: If the radio receives a Group Call while not on the Home screen, it remains on its current screen prior to answering the call.

Note: Long press the button to go to the Home screen to view the caller alias before replying.

Receiving and Responding to a Private Call

A Private Call is a call from an individual radio to another individual radio.

When you receive a Private Call, the LED blinks green. The first line of the display shows the subscriber alias or ID, and the RSSI icon. The second line displays `Private Call` and the Private Call icon. Your radio unmutes and the incoming call sounds through the radio's speaker.

1 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.
- If the Voice Interrupt feature is enabled, press the **PTT** button to stop the current call from the transmitting radio and free the channel for you to talk/respond.

The LED lights up solid green.

2 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

3 Release the **PTT** button to listen.

If there is no voice activity for a predetermined period of time, the call ends.

The display shows `Call Ended`.

See **Making a Private Call** on page 34 for details on making a Private Call.

Receiving an All Call

An All Call is a call from an individual radio to every radio on the channel. It is used to make important announcements requiring the user's full attention.

When you receive an All Call, a tone sounds and the LED blinks green.

The first line of the display shows the caller alias, and the RSSI icon. The second line displays `All Call` and the All Call icon. Your radio unmutes and the incoming call sounds through the radio speaker.

Once the All Call ends, the radio returns to the previous screen before receiving the call. An All Call does not wait for a predetermined period of time before ending.

If the Channel Free Indication feature is enabled, you will hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is now available for use.

You cannot respond to an All Call.

Note: See **Making an All Call** on page 35 for details on making an All Call.

Note: The radio stops receiving the All Call if you switch to a different channel while receiving the call. During an All Call, you will **not** be able to use any programmed button functions until the call ends.

Receiving and Responding to a Phone Call

Phone Call as Private Call

When you receive a Phone Call as a Private Call, the Phone Call icon appears in the top right corner; the display shows the caller alias or `Phone Call`.

If Phone Call capability is not enabled in your radio, the first line of the display shows `Unavailable` and your radio mutes the call. Your radio returns to the previous screen when the call ends.

1 Press the **PTT** button to talk and release it to listen.

2 Press to end the call.

The display shows `Ending Phone Call`.

If successful, a tone sounds and the display shows `All Call` and `Call Ended`.

If unsuccessful, your radio returns to the Phone Call screen. Repeat Step **2** to end the call.

Phone Call as Group Call

When you receive a Phone Call as a Group Call,

1 Press the **PTT** button to talk and release it to listen.

2 Press to end the call.

The display shows `Ending Phone Call`.

If successful, a tone sounds and the display shows `All Call` and `Call Ended`.

If unsuccessful, your radio returns to the Phone Call screen. Repeat Step to end the call.

Phone Call as All Call

When you receive a Phone Call as an All Call, the Phone Call icon appears in the top right corner; the display shows `All Call` and `Phone Call`.

If Phone Call capability is not enabled in your radio, the first line of the display shows `Unavailable` and your radio mutes the call.

Note: When you receive a Phone Call as an All Call, you can respond to the call or end the call, only if an All Call type is assigned to the channel.

1 Press the **PTT** button to talk and release it to listen.

2 Press to end the call.

The display shows `Ending Phone Call`.

If successful, a tone sounds and the display shows `All Call` and `Call Ended`.

If unsuccessful, your radio returns to the Phone Call screen. Repeat Step 3 to end the call.

Making a Radio Call

After selecting your channel, you can select a subscriber alias or ID, or group alias or ID by using:

- The **PTT** button.
- A programmed **One Touch Access** button – The One Touch Access feature allows you to make a Group or Private Call to a predefined ID easily. This feature can be assigned to a short or long programmable button press. You can **ONLY** have one ID assigned to a **One Touch Access** button. Your radio can have multiple **One Touch Access** buttons programmed.
- The programmed number keys – This method is for Group, Private and All Calls only and is used with the keypad (see **Making a Group, Private or All Call with the Programmable Number Key** on page 37).
- A programmable button – This method is for Phone Calls only (see **Making a Phone Call with the Programmable Phone Button** on page 38).
- The Contacts list (see **Contact Settings** on page 50).
- Manual Dial – This method is for Private and Phone Calls only and is dialed using the keypad (see **Making a Private Call from Contacts** on page 52, and **Making a Call with the Programmable Manual Dial Button**).

Note: Your radio must have the Privacy feature enabled on the channel to send a privacy-enabled transmission. Only target radios with the same Privacy Key OR the same Key Value and Key ID as your radio will be able to unscramble the transmission.

Note: See **Privacy** on page 90 for more information.

Making a Group Call

To make a call to a group of users, your radio must be configured as part of that group.

1 Do one of the following.

- Select the channel with the active group alias or ID. See **Selecting a Channel** on page 29
- Press the programmed **One Touch Access** button.

2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press the **PTT** button to make the call.

The LED lights up solid green. The Group Call icon appears in the top right corner. The first text line shows the group call alias.

4 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

5 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green, the radio unmutes and the response sounds through the radio's speaker. You see the Group Call icon, the group alias or ID, and transmitting radio alias or ID on your display.

6 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

If there is no voice activity for a predetermined period of time, the call ends. Radio returns to the screen you were on prior to initiating the call.

Making a Private Call

While you can receive and/or respond to a Private Call initiated by an authorized individual radio, your radio must be programmed for you to initiate a Private Call.

There are two types of Private Calls. The first type, where a radio presence check is performed prior to setting up the call, while the other sets up the call immediately.

Only **one** of these call types can be programmed to your radio by your dealer.

You will hear a negative indicator tone, when you make a Private Call via the Contacts list, Call Log, **One Touch Access** button, the programmed number keys, or the Channel Selector Knob, if this feature is not enabled.

Use the Text Message or Call Alert features to contact an individual radio. See **Text Message Features** on page 72 or **Call Alert Operation** on page 66 for more information.

1 Do one of the following.

- Select the channel with the active subscriber alias or ID. See **Selecting a Channel** on page 29
- Press the programmed **One Touch Access** button.

2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press the PTT button to make the call.

If you release the PTT button while the radio is setting up the call, it exits without any indication and returns to the previous screen.

The LED lights up solid green, the radio unmutes and the response sounds through the radio's speaker. The Private Call icon appears on the top right corner. The first text line shows the subscriber alias. The second text line displays the call status..

4 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

5 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green, the radio unmutes and the response sounds through the radio's speaker.

6 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

If there is no voice activity for a predetermined period of time, the call ends. You hear a short tone. The display shows `Call Ended`.

Your radio may be programmed to perform a radio presence check prior to setting up the Private Call. If the target radio is not available, you hear a short tone and see negative mini notice on the display.

Making an All Call

This feature allows you to transmit to all users on the channel. Your radio must be programmed to allow you to use this feature.

Users on the channel cannot respond to an All Call.

1 Select the channel with the active All Call group alias or ID. See **Selecting a Channel** on page 29

2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press the **PTT** button to make the call.

The LED lights up solid green.The Group Call icon appears in the top right corner. The first text line shows `All Call`.

4 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

Making a Phone Call with the One Touch Access Button

1 Press the programmed **One Touch Access** button to make a Phone Call to the predefined alias or ID.

If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds. If the access code was not preconfigured in the Contacts list, the display shows `Access Code:`. Enter the access code and press ⊞ to proceed.

The LED lights up solid green. The Phone Call icon appears in the top right corner. The first text line shows the subscriber alias. The second text line displays the call status.

If the call-setup is successful, the DTMF tone sounds. You hear the dialing tone of the telephone user. The first text line shows the subscriber alias. The Phone Call icon remains in the top right corner.

If the call-setup is unsuccessful, a tone sounds and the display shows `Phone Call Failed`. Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press the PTT button to talk and release it to listen.

To enter extra digits, if requested by the Phone Call, enter the extra digits using the keypad and press ⊞ to proceed.

The DTMF tone sounds with each keypad press, and the radio returns to the previous screen.

4 Press to end the call.

If de-access code was not preconfigured in the Contacts list, the display shows `De-Access Code:`. Press the **One Touch Access** button, if it is programmed with the de-access code. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

The DTMF tone sounds with each keypad press, and the display shows `Ending Phone Call`.

If the end-call-setup is successful, a tone sounds and the display shows `Call Ended`.

If the end-call-setup is unsuccessful, your radio returns to the Phone Call screen. Repeat Step **4** or wait for the telephone user to end the call.

Note: When the telephone user ends the call, a tone sounds and the display shows `Call Ended`.

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

During channel access, press to dismiss the call attempt. A tone sounds to indicate success.

During the call, if you press the **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

The access or deaccess code cannot be more than 10 characters.

Making a Group, Private or All Call with the Programmable Number Key

The Programmable Number Key feature allows you to make a Group, Private or All Call to a predefined alias or ID easily. This feature can be assigned to all the available number keys on a keypad.

You can **ONLY** have one alias or ID assigned to a number key, but you can have more than one number key associated to an alias or ID.

1 Long press the programmed number key, when you are on the Home screen, to make a Group, Private or All Call to the predefined alias or ID.

If the number key is not associated to an entry, a negative indicator tone sounds.

2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press the **PTT** button to make the call.

The LED lights up solid green, the radio unmutes and the response sounds through the radio's speaker. The Group/Private Call icon appears in the top right corner. The first text line shows the caller alias. The second text line displays either the call status for a Private Call or `All Call` for All Call..

4 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

5 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green, the radio unmutes and the response sounds through the radio's speaker..

6 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

If there is no voice activity for a predetermined period of time, the call ends. Radio returns to the screen you were on prior to initiating the call.

For a Private Call, you hear a short tone when the call ends.

See **Assigning an Entry to a Programmable Number Key** on page 57 for details on assigning an entry to a number key on the keypad.

Making a Phone Call with the Programmable Phone Button

1 Press the programmed **Phone** button to enter into the Phone Entry list.

2 ▲ or ▼ to the required subscriber alias or ID, and press ⊞ to select.

If the access code was not preconfigured in the Contacts list, the display shows `Access Code:`. Enter the access code and press the ⊞ button to proceed.

The LED lights up solid green. The Phone Call icon appears in the top right corner. The first text line shows the subscriber alias. The second text line displays the call status.

If the call-setup is successful, the DTMF tone sounds. You hear the dialing tone of the telephone user. The first text line shows the subscriber alias. The Phone Call icon remains in the top right corner.

If call-setup is unsuccessful, a tone sounds and the display shows `Phone Call Failed`. Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

3 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

4 Press the **PTT** button to talk and release it to listen.

5 To enter extra digits, if requested by the Phone Call, do one of the following.

- Press any keypad key to begin the input of the extra digits. The first line of the display shows `Extra Digits:`. The second line of the display shows a blinking cursor. Enter the extra digits and press the button to proceed. The DTMF tone sounds and the radio returns to the previous screen.
- Press **One Touch Access** button. The DTMF tone sounds. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

6 Press to end the call.

If deaccess code was not preconfigured in the Contacts list, the first line of the display shows `De-Access Code:`. The second line of the display shows a blinking cursor. Enter the deaccess code and press the button to proceed. The radio returns to the previous screen.

The DTMF tone sounds and the display shows `Ending Phone Call`.

If the end-call-setup is successful, a tone sounds and the display shows `Call Ended`.

If the end-call-setup is unsuccessful, your radio returns to the Phone Call screen. Repeat Steps **4** and **5** or wait for the telephone user to end the call.

When you press **PTT** button while in the Phone Contacts screen, a tone sounds and the display shows `Press OK to Place Phone Call`.

When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

Note: During channel access, press to dismiss the call attempt and a tone sounds.

Note: During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

Note: The access or deaccess code cannot be more than 10 characters.

Stopping a Radio Call

This feature allows you to stop an ongoing Group or Private Call to free the channel for transmission. For example, when a radio experiences a “stuck microphone” condition where the **PTT** button is inadvertently pressed by the user.

Your radio must be programmed to allow you to use this feature.

1 Press the programmed **Transmit Interrupt Remote Dekey** button, while on the relevant channel.

2 Wait for acknowledgment.

The radio sounds a positive indicator tone and the display shows `Remote Dekey Success`, indicating that the channel is now free. The display shows `Call Interrupted`, and the radio sounds a negative indicator tone until the **PTT** button is released, if it is transmitting an interruptible call that is stopped via this feature.

OR

The radio sounds a negative indicator tone and the display shows `Remote Dekey Failed`.

Talkaround

You can continue to communicate when your repeater is not operating, or when your radio is out of the repeater’s range but within talking range of other radios.

This is called “talkaround”.

Note: This feature is not applicable in Capacity Plus and Linked Capacity Plus.

The Talkaround setting is retained even after powering down.

You can toggle between talkaround and repeater modes by pressing the programmed **Repeater/Talkaround** button **OR** using the radio menu as described next.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Talkaround` and press ⊞ to select.

You can also use ◀ or ▶ to change the selected option.

5 Press ⊞ to enable/disable the Talkaround.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Monitoring Features

Monitoring a Channel

Use the Monitor feature to make sure a channel is clear before transmitting.

This feature is not applicable in Capacity Plus and Linked Capacity Plus.

1 Press and hold the programmed **Monitor** button and listen for activity.

The Monitor icon appears on the display and the LED lights up solid yellow. You hear radio activity or total silence, depending on how your radio is programmed. This indicates that the channel is in use.

2 Wait until you hear “white noise”. This indicates that the channel is free.

3 Press the **PTT** button to talk and release it to listen.

Permanent Monitor

Use the Permanent Monitor feature to continuously monitor a selected channel for activity.

Note: This feature is not applicable in Capacity Plus and Linked Capacity Plus.

1 Press the programmed **Permanent Monitor** button to activate permanent monitoring of the channel.

Radio sounds an alert tone, the LED lights up solid yellow, and the display shows `Permanent Monitor On`. The Monitor icon appears on the display.

2 Press the programmed **Permanent Monitor** button to exit Permanent Monitor mode.

Radio sounds an alert tone, the LED turns off, and display shows Radio sounds an alert tone, the LED turns off, and display shows `Permanent Monitor Off`.

Advanced Features

The following topics are covered:

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Radio Check

If enabled, this feature allows you to determine if another radio is active in a system without disturbing the user of that radio. r visual notification is shown on the target radio.

Sending a Radio Check

1 Access the Radio Check feature.

Radio Control	Steps
Programmed Radio Check button	a. Press the programmed **Radio Check** button. b. ▲ or ▼ to the required subscriber alias or ID and press ⊞ to select.
Menu	a. ⊞ to access the menu b. ▲ or ▼ to `Contacts` and press ⊞ to select c. Use one of the steps described next to select the required subscriber alias or ID • select the subscriber alias or ID directly – ▲ or ▼ to the required subscriber alias or ID and press ⊞ to select. • use the `Manual Dial` menu – ▲ or ▼ to `Manual Dial` and press ⊞ to select. – ▲ or ▼ to `Radio Number` and press ⊞ to select. – If there was previously dialed ID, the ID appears along with a blinking cursor. Else, the first line of the display shows `Radio Number:`; the

2 Wait for acknowledgement.

If the ↩ button is pressed when the radio is waiting for acknowledgement, a tone sounds, and the radio terminates all retries and exits Radio Check mode.

If Radio Check is successful, a positive indicator tone sounds and the display shows positive mini notice.

If Radio Check is unsuccessful, a negative indicator tone sounds and the display shows negative mini notice.

Radio returns to the subscriber alias or ID screen.

Remote Monitor

Use the Remote Monitor feature to turn on the microphone of a target radio (subscriber alias or IDs only). No audible or visual indication is given to the target radio. You can use this feature to monitor, remotely, any audible activity surrounding the target radio.

Your radio must be programmed to allow you to use this feature.

Initiating Remote Monitor

1 Access the Remote Monitor feature.

Radio Control	Steps
Programmed Remote Monitor Button	a. Press the programmed **Remote Monitor** button. b. ▲ or ▼ to the required subscriber alias or ID and press ⊞ to select.
Menu	a. ⊞ to access the menu b. ▲ or ▼ to `Contacts` and press ⊞ to select c. Use one of the steps described next to select the required subscriber alias or ID • select the subscriber alias or ID directly – ▲ or ▼ to the required subscriber alias or ID and press ⊞ to select. • use the `Manual Dial` menu – ▲ or ▼ to `Manual Dial` and press ⊞ to select. – ▲ or ▼ to `Radio Number` and press ⊞ to select. – If there was previously dialed ID, the ID appears along with a blinking cursor. Else, the first line of the display shows `Radio Number:`; the second line of the display shows a

2 Wait for acknowledgement.

If successful, a positive indicator tone sounds and the display shows positive mini notice. Your radio starts playing audio from the monitored radio for a programmed duration and display shows `Rem. Monitor`. Once the timer expires, the radio sounds an alert tone and the LED turns off.

If unsuccessful, the radio sounds a negative indicator tone the display shows negative mini notice.

Scan Lists

Scan lists are created and assigned to individual channels/ groups. Your radio cycles through the programmed scan list for the current channel looking for voice activity. At each channel in the cycle the radio also cycles through the group list for that channel.

Your radio can support up to 250 scan lists, with a maximum of 16 members in a list.

You can add, delete, or prioritize channels by editing a scan list.

You can attach a new scan list to your radio via Front Panel Programming.

Note: This feature is not applicable in Capacity Plus and Linked Capacity Plus.

Viewing an Entry in the Scan List

1 ⊞ to access the menu.

Viewing an Entry in the Scan List by Alias Search

1 to access the menu.

2 or to Scan and press to select.

3 or to View/Edit List and press to select.

4 Key in the first character of the required alias.

A blinking cursor appears.

5 Use the keypad to type the required alias.

Press to move one space to the left. Press to move one space to the right. Press the key to delete any unwanted characters.

The first line of the display shows the characters you keyed in. The second line of the display shows an alias that matches what you have keyed in.

The alias search is case-insensitive. If there are two or more entries with the same name, the radio displays the entry that is listed first in the scan list.

Editing the Scan List

Adding a New Entry to the Scan List

1 to access the menu.

2 or to Scan and press to select.

3 or to View/Edit List and press to select.

4 or to Add Member and press to select.

5 Select the required alias or ID by

Radio Control	Steps
Radio Navigation Buttons	▲ or ▼ to the required alias or ID.
Keypad	Key in the first character of the required alias. A blinking cursor appears. Press ◀ to move one space to the left. Press ▶ to move one space to the right. Press the * key to delete any unwanted characters. Long press # to change the text entry method. The first line of the display shows the characters you keyed in. The next lines of the display show the short listed search results. The alias search is case-insensitive. If there are two or more aliases with the same name, the radio displays the alias that is listed first in the list.

6 Press ⊛ to select.

7 ▲ or ▼ to the required priority level and press ⊛ to select.

The display shows `Entry Saved`, followed immediately by `Add Another?`.

8 Do one of the following:

- ▲ or ▼ to `Yes` and press ⊛ to select, and repeat Steps **5** to **7** .
- ▲ or ▼ to `No` and press ⊛ to save the current list.

Deleting an Entry from the Scan List

1 ⊛ to access the menu.

2 ▲ or ▼ to `Scan` and press ⊛ to select.

3 ▲ or ▼ to `View/Edit List` and press ⊛ to select.

4 Select the required alias or ID by

Radio Control	Steps
Radio Navigation Buttons	▲ or ▼ to the required alias or ID.
Keypad	Key in the first character of the required alias. A blinking cursor appears. Press ◀ to move one space to the left. Press ▶ to move one space to the right. Press the * key to delete any unwanted characters. Long press # to change the text entry method. The first line of the display shows the characters you keyed in. The next lines of the display show the short listed search results. The alias search is case-insensitive. If there are two or more aliases with the same name, the radio displays the alias that is listed first in the list.

5 Press ⊛ to select.

6 ▲ or ▼ to `Delete` and press ⊛ to select.

7 Do one of the following:

- At `Delete Entry?`, ▲ or ▼ to `Yes` and press ⊛ to delete entry. The display shows `Entry Deleted`.
- ▲ or ▼ to `No` and press ⊛ to return to the previous screen.

8 Repeat Steps **4** to **7** to delete other entries.

After deleting all required aliases or IDs, long press ⏻ to return to the Home screen.

Setting and Editing Priority for an Entry in the Scan List

1 ⊛ to access the menu.

2 ▲ or ▼ to `Scan` and press ⊛ to select.

3 ▲ or ▼ to `View/Edit List` and press ⊛ to select.

4 Select the required alias or ID by

Radio Control	Steps
Radio Navigation Buttons	▲ or ▼ to the required alias or ID.
Keypad	Key in the first character of the required alias. A blinking cursor appears. Press ◀ to move one space to the left. Press ▶ to move one space to the right. Press the * key to delete any unwanted characters. Long press # to change the text entry method. The first line of the display shows the characters you keyed in. The next lines of the display show the short listed search results. The alias search is case-insensitive. If there are two or more aliases with the same name, the radio displays the alias that is listed first in the list.

5 Press ⊛ to select.

6 ▲ or ▼ to `Edit Priority` and press ⊛ to select.

7 ▲ or ▼ to the required priority level and press ⊛ to select.

The display shows `Entry Saved` before returning to the previous screen.

Note: The Priority icon appears left of the member's name.

There is no Priority icon if priority is set to **None**.

Scan

When you start a scan, your radio cycles through the programmed scan list for the current channel looking for voice activity.

The LED blinks yellow and you see the Scan icon on the display.

There are two ways of initiating scan:

- **Main Channel Scan (Manual)**: Your radio scans all the channels/groups in your scan list. On entering scan, your radio may – depending on the settings – automatically start on the last scanned "active" channel/group or on the channel where scan was initiated.

- **Auto Scan (Automatic)**: Your radio automatically starts scanning when you select a channel/group that has Auto Scan enabled.

  Note: This feature is not applicable in Capacity Plus and Linked Capacity Plus.

Setting an Active Scan List

1 to access the menu.

2 or to Scan and press to select.

3 or to Set Active List and press to select.

4 or to the required list and press to select.

The list selected will be your active scan list.

Starting and Stopping Scan

While scanning, the radio will only accept data (e.g. text message, location, telemetry, or PC data) if received on its Selected Channel.

You can start and stop scanning by pressing the programmed **Scan** button **OR** follow the procedure described next.

1 Use the Channel Selector Knob to select a channel programmed with a scan list.

2 to access the menu.

3 or to Scan and press to select.

- The display shows Turn On if scan is disabled.
- The display shows Turn Off if scan is enabled.

4 Press to select.

- The LED blinks yellow and the Scan icon is displayed, when Scan is enabled.
- The LED turns off and the Scan icon is not displayed, when Scan is disabled.

Responding to a Transmission During a Scan

During scanning, your radio stops on a channel/group where activity is detected. Your radio unmutes and the incoming call sounds through the radio's speaker.The radio stays on that channel while the activity is present and for a programmed time period known as “hang time”.

1 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond.

2 Press the **PTT** button during hang time.

The LED lights up solid green.

3 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

4 Release the **PTT** button to listen.

If you do not respond within the hang time, the radio returns to scanning other channels/groups.

Deleting a Nuisance Channel

If a channel continually generates unwanted calls or noise (termed a “nuisance” channel), you can temporarily remove the unwanted channel from the scan list.

This capability does not apply to the channel designated as the Selected Channel.

Deleting a “nuisance” channel is **only** possible through the programmed **Nuisance Channel Delete** button. This feature is **not** accessible through the menu.

1 When your radio “locks on to” an unwanted or nuisance channel, press the programmed **Nuisance Channel Delete** button until you hear a tone.

2 Release the **Nuisance Channel Delete** button.

The nuisance channel is deleted.

Restoring a Nuisance Channel

To restore the deleted nuisance channel, do one of the following:

- Turn the radio off and then power it on again.
- Stop and restart a scan via the programmed **Scan** button or menu.
- Change channel or zone.

Contact Settings

Contacts provides “address-book” capabilities on your radio. Each entry corresponds to an alias or ID that you use to initiate a call.

Each entry, depending on context, associates with **one** of five types of calls: Group Call, Private Call, All Call, PC Call or Dispatch Call.

PC Call and Dispatch Call are data-related. They are only available with the applications. Refer to the data applications documentation for more information.

Note: If the Privacy feature is enabled on a channel, you can make privacy-enabled Group Call, Private Call, and All Call on that channel. Only target radios with the same Privacy Key OR the same Key Value and Key ID as your radio will be able to unscramble the transmission.

See **Privacy** on page 90 for more information.

Additionally, Contacts menu allows you to assign each entry to a programmable number key or more on a keypad. If an entry is assigned to a number key, your radio can perform a quick dial on the entry.

Your radio supports maximum of 1000 Contact list entries.

Each entry within Contacts displays the following information:

- Call Type
- Call Alias
- Call ID

Note: You can add or edit subscriber IDs for the Digital Contacts list.

Making a Group Call from Contacts

1 Ⓜ to access the menu.

2 ▲ or ▼ to `Contacts` and press Ⓜ to select.

The entries are alphabetically sorted.

3 ▲ or ▼ to the required group alias or ID.

4 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

5 Press the **PTT** button to make the call.

The LED lights up solid green. The first line displays the subscriber alias or ID. The second line displays `Private Call` and the Private Call icon

6 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

7 Release the **PTT** button to listen.

When any user in the group responds, the LED blinks green, the display shows the transmitting user's ID, the radio unmutes and the response sounds through the radio's speaker.

8 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

If there is no voice activity for a predetermined period of time, the call ends.

9 You hear a short tone. The display shows `Call Ended`.

Making a Private Call from Contacts

1 ⊞ to access the menu.

2 ▲ or ▼ to `Contacts` and press ⊞ to select.

The entries are alphabetically sorted.

3 Use one of the steps described next to select the required subscriber alias or ID:

- select the subscriber alias or ID directly
  - – ▲ or ▼ to the required subscriber alias or ID and press ⊞ to select.
- use the `Manual Dial` menu
  - – ▲ or ▼ to `Manual Dial` and press ⊞ to select.
  - – ▲ or ▼ to `Radio Number` and press ⊞ to select.
  - – If there was previously dialed ID, the ID appears along with a blinking cursor. Else, the first line of the display shows `Radio Number:`; the second line of the display shows a blinking cursor. Use the keypad to edit/enter the ID. Press ⊞ to select.

4 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

5 Press the **PTT** button to make the call.

The LED lights up solid green. The first line displays the subscriber alias or ID. The second line displays `Private Call` and the Private Call icon.

6 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

7 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green and the display shows the transmitting user's ID. the radio unmutes and the response sounds through the radio's speaker.

8 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases

the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

If there is no voice activity for a predetermined period of time, the call ends.

The display shows `Call Ended`.

Making a Phone Call from Contacts

1 to access the menu.

2 ▲ or ▼ to `Contacts` and press to select.

The entries are alphabetically sorted.

3 Use one of the steps described next to select the required subscriber alias or ID:

- select the subscriber alias or ID directly
  - ▲ or ▼ to the required subscriber alias or ID and press to select.
- use the `Manual Dial` menu
  - ▲ or ▼ to `Manual Dial` and press to select.
  - ▲ or ▼ to `Phone Number` and press to select.
  - The first line of the display shows `Phone Number:` , the second line of the display shows a blinking cursor. Use the keypad to enter a telephone number, and press to select the entered number.

If the entry selected is empty, a negative indicator tone sounds and the display shows `Phone Call Invalid #` .

When you press **PTT** button while in the Phone Contacts screen, a negative indicator tone sounds and the display shows `Press OK to Place Phone Call`.

4 ▲ or ▼ to `Call Phone` and press to select.

5 If the access code was not preconfigured in the Contacts list, the first line of the display shows `Access Code:` . The second line of the display shows a blinking cursor. Enter the access code and press to proceed.

During channel access, press to dismiss the call attempt and a negative indicator tone sounds. Your radio returns to the Call Phone screen.

The access code cannot be more than 10 characters.

The first line of the display shows `Calling`. The second line of the display shows the subscriber alias or ID, and the Phone Call icon.

If successful, the DTMF tone sounds. You hear the dialing tone of the telephone user. The first line of the display shows the subscriber alias or ID, and the RSSI icon. The second line of the display shows `Phone Call` and the Phone Call icon.

If unsuccessful, a tone sounds and the display shows `Phone Call Failed`. Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

6 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

7 Do one of the following:

- Press the **PTT** button to talk and release it to listen.

  Note: The RSSI icon disappears during transmission.

  To enter extra digits, if requested by the Phone Call, press any keypad key to begin the input of extra digits. The first line of the display shows `Extra Digits:` . The second line of the display shows a blinking cursor. Enter the extra digits and press to proceed. The DTMF tone sounds and the radio returns to the previous screen.

  If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

- Press **One Touch Access** button.

  Note: The DTMF tone sounds.

  If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

During channel access and access/deaccess code or extra digits transmission, your radio responds to **On/ Off/Volume Control Knob** and **Channel Selector Knob** only. A tone sounds for every invalid input.

8 Press to end the call.

9 If deaccess code was not preconfigured in the Contacts list, the first line of the display shows `De-Access Code:`. The second line of the display shows a blinking cursor. Enter the deaccess code and press to proceed.

The deaccess code cannot be more than 10 characters.

The DTMF tone sounds and the display shows `Ending Phone Call`.

If successful, a tone sounds and the display shows `Phone Call Ended`. Your radio returns to the Call Phone screen.

If unsuccessful, your radio returns to the Phone Call screen. Repeat Steps **8** and **9** or wait for the telephone user to end the call.

When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.

Making a Call Alias Search

You can also use alias or alphanumeric search to retrieve the required subscriber alias.

This feature is only applicable while in Contacts.

Note:

Press button or to exit alias search.

If you release the PTT button while the radio is setting up the call, it exits without any indication and returns to the previous screen.

Your radio may be programmed to perform a radio presence check prior to setting up the Private Call. If the target radio is not available, you hear a short tone and see negative mini notice on the display.

1 to access the menu.

2 or to `Contacts` and press to select.

The entries are alphabetically sorted.

3 Key in the first character of the required alias.

A blinking cursor appears.

4 Use the keypad to type the required alias.

Press to move one space to the left. Press to move one space to the right. Press the key to delete any

unwanted characters. Long press to change text entry method.

The first line of the display shows the characters you keyed in. The next lines of the display show the short listed search results. The alias search is case-insensitive. If there are two or more entries with the same name, the radio displays the entry that is listed first in the Contacts list.

5 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

6 Press the **PTT** button to make the call.

The LED lights up solid green. The display shows the destination alias.

7 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

8 Release the PTT button to listen.

When the target radio responds, the LED blinks green, the radio unmutes and the response sounds through the radio's speaker.

9 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

If there is no voice activity for a predetermined period of time, the call ends.

The display shows `Call Ended`.

Making a Group, Private, Phone or All Call by Alias Search

You can also use alias or alphanumeric search to retrieve the required subscriber alias.

This feature is only applicable while in Contacts.

Note:

Press button or to exit alias search.

If you release the PTT button while the radio is setting up the call, it exits without any indication and returns to the previous screen.

Your radio may be programmed to perform a radio presence check prior to setting up the Private Call. If the target radio is not available, you hear a short tone and see `Party Not Available` on the display; the radio returns to the menu prior to initiating the radio presence check.

1 to access the menu.

2 ▲ or ▼ to Contacts and press ⊛ to select.

The entries are alphabetically sorted.

3 Key in the first character of the required alias.

A blinking cursor appears.

4 Use the keypad to type the required alias.

Press ◀ to move one space to the left. Press ▶ to move one space to the right. Press the * key to delete any unwanted characters.

The first line of the display shows the characters you keyed in. The second line of the display shows an alias that matches what you have keyed in. The alias search is case-insensitive. If there are two or more entries with the same name, the radio displays the entry that is listed first in the Contacts list.

5 ▲ or ▼ to scroll to desired entry, if necessary.

6 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

7 Press the **PTT** button to make the call.

The LED lights up solid green. The first line displays the target radio's ID. The second line displays the call type and the Call icon.

8 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

9 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green.

10 If the Channel Free Indication feature is enabled, you will hear a short alert tone the moment the target radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

If there is no voice activity for a programmed period of time, the call ends.

You hear a short tone. The display shows Call Ended.

Assigning an Entry to a Programmable Number Key

Note: See **Making a Group, Private or All Call with the Programmable Number Key** on page 37 for details on making a Group, Private or All Call with the programmed number key(s).

1 ⊞ to access the menu.

2 ▲ or ▼ to Contacts and press ⊞ to select.

The entries are alphabetically sorted.

3 ▲ or ▼ to the required alias or ID and press ⊞ to select.

4 ▲ or ▼ to Program Key and press ⊞ to select.

5 ▲ or ▼ to the desired number key and press ⊞ to select.

If the number key is currently assigned to another entry, the display shows The Key is Already Assigned and then, the first line of the display shows Overwrite?. Do one of the following.

- ▲ or ▼ to Yes and press ⊞ to overwrite the number key assignment.
- ▲ or ▼ to No and press ⊞ to return to the previous step.

Each entry can be associated to different number keys. You see a ✓ before each number key that is assigned to an entry. If the ✓ is before Empty, that number key is not assigned.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

The radio sounds a positive indicator tone and the display shows Contact Saved.

The screen automatically returns to the previous menu.

Removing the Association between Entry and Programmable Number Key

1 Access the required alias or ID via:

Radio Control	Steps
Programmed number key	Long press the programmed number key to the required alias or ID; press to select.
Menu	a. to access the menu b. or to Contacts and press to select. The entries are alphabetically sorted. c. or to the required subscriber alias or ID and press to select.

2 or to Program Key and press to select.

3 or to Empty and press to select.

The first line of the display shows Clear from all keys? .

4 or to Yes and press to select.

Note: When an entry is deleted, the association between the entry and its programmed number key(s) is removed.

The radio sounds a positive indicator tone and the display shows Contact Saved.

The screen automatically returns to the previous menu.

Adding a New Contact

1 to access the menu.

2 or to Contacts and press to select.

3 or to New Contact and press to select.

4 or to the required contact type, either Radio Contact or Phone Contact, and press to select.

5 Use the keypad to enter the contact number and press to confirm.

6 Use the keypad to enter the contact name and press to confirm.

7 If adding a Radio Contact, ▲ or ▼ to the required ringer type and press ⊞ to select.

The radio sounds a positive indicator tone and the display shows positive mini notice.

Sending a Message to a Contact

1 ⊞ to access the menu.

2 ▲ or ▼ to `Contacts` and press ⊞ to select.

3 ▲ or ▼ to `New Contact` and press ⊞ to select.

4 ▲ or ▼ to the required contact type, either `Radio Contact` or `Phone Contact`, and press ⊞ to select.

5 ▲ or ▼ to the required alias and press ⊞ to select.

6 ▲ or ▼ to `Send Message` and press ⊞ to select.

7 Press ⊞ to send the message.

Call Indicator Settings

Activating and Deactivating Call Ringers for Call Alert

You can select, or turn on or off ringing tones for a received Call Alert.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Tones/Alert` and press ⊞ to select.

5 ▲ or ▼ to `Call Ringers` and press ⊞ to select.

6 ▲ or ▼ to `Call Alert` and press ⊞ to select.

The current tone is indicated by a ✓.

7 ▲ or ▼ to the required tone and press ⊞ to select.

You can also use ◀ or ▶ to change the selected option.

✓ appears beside selected tone.

Activating and Deactivating Call Ringers for Private Calls

You can turn on or off the ringing tones for a received Private Call.

1 to access the menu.

2 ▲ or ▼ to Utilities and press to select.

3 ▲ or ▼ to Radio Settings and press to select.

4 ▲ or ▼ to Tones/Alerts and press to select.

5 ▲ or ▼ to Call Ringers and press to select.

6 ▲ or ▼ to Private Call and press to select.

You can also use ◀ or ▶ to change the selected option.

7 Press to enable/disable the Private Call ringing tones.

The display shows ✓ beside Enabled, if Private Call ringing tones are enabled.

The ✓ disappears from beside Enabled, if Private Call ringing tones are disabled.

Activating and Deactivating Call Ringers for Text Message

You can turn on or off the ringing tones for a received Text Message.

1 to access the menu.

2 ▲ or ▼ to Utilities and press to select.

3 ▲ or ▼ to Radio Settings and press to select.

4 ▲ or ▼ to Tones/Alerts and press to select.

5 ▲ or ▼ to Call Ringers and press to select.

6 ▲ or ▼ to Text Message and press to select.

The current tone is indicated by a ✓.

7 ▲ or ▼ to the required tone and press ⊞ to select.

✓ appears beside selected tone.

Activating and Deactivating Call Ringers for Telemetry Status with Text

You can turn on or off the ringing tones for a received Telemetry Status with Text.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Tones/Alerts` and press ⊞ to select.

5 ▲ or ▼ to `Call Ringers` and press ⊞ to select.

6 ▲ or ▼ to `Telemetry` and press ⊞ to select.

The current tone is indicated by a ✓.

7 Do one of the following:

- ▲ or ▼ to the preferred tone and press ⊞ to select. The display shows `Tone <Number> Selected` and a ✓ appears left of the selected tone.
- ▲ or ▼ to `Turn Off` and press ⊞ to select. The display shows `Telemetry Ringer Off` and a ✓ appears left of `Turn Off`.

Assigning Ring Styles

You can program your radio to sound one of ten predefined ringing tones when receiving a Call Alert or a Text Message from a particular contact.

The radio sounds out each ring style as you navigate through the list.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Contacts` and press ⊞ to select.

The entries are alphabetically sorted.

3 ▲ or ▼ to the required alias or ID and press ⊞ to select.

4 ▲ or ▼ to View/Edit and press ⊞ to select.

5 ▲ or ▼ to Ringer and press ⊞ to select.

6 ▲ or ▼ to required ring style and press ⊞ to select.

A ✓ indicates the current selected tone.

7 ▲ or ▼ to the required tone and press ⊞ to select. ✓ appears beside selected tone.

The display shows Contact Saved.

All Tones

1 ⊞ to access the menu.

2 ▲ or ▼ to Utilities and press ⊞ to select.

3 Go to Radio Settings. SelectTones/Alerts. Select All Tones. Toggle All Tones to be enabled or disabled.

Ring Alert Type Selection

You can program your the radio calls to one predeternined vibrate call. If All Tones status is disabled, the radio displays the All Tone Mute icon.

If All Tones status is enabled, the related ring alert type is displayed.

The radio sounds one vibration if it is a momentary ring style. The radio will vibrate repetitively if it is a repetitive ring style. When set to Ring & Vibrate, the radio sounds a specific ring tone if there is any incoming radio transaction (i.e. Call Alert, Message or Job Ticket). It sounds like a good key tone or missed call. If the notification list is not empty, the radio repeats a vibration every 5 minutes.

1 ⊞ to access the menu.

2 ▲ or ▼ to Utilities and press ⊞ to select.

3 Go to Radio Settings. Select Tones/Alerts. Select Ring Alert Type.

4 Choose from one of the following:

- Ring
- Vibrate
- Vibrate & Ring
- Silent

Escalating Alarm Tone Volume

You can program your radio to continually alert you when a radio call remains unanswered. This is done by automatically increasing the alarm tone volume over time. This feature is known as Escalert.

1 to access the menu.

2 ▲ or ▼ to Utilities and press to select.

3 ▲ or ▼ to Radio Settings and press to select.

4 ▲ or ▼ to Tones/Alerts and press to select.

5 ▲ or ▼ to Escalert and press to select.

You can also use ◀ or ▶ to change the selected option.

6 Press to enable/disable the Escalert.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Call Log Features

Your radio keeps track of all recent outgoing, answered, and missed Private Calls. Use the call log feature to view and manage recent calls.

You can perform the following tasks in each of your call lists:

- Store ID to Contacts
- Delete
- View Details

Viewing Recent Calls

The lists are Missed, Answered, and Outgoing.

1 to access the menu.

2 ▲ or ▼ to Call Log and press to select.

3 ▲ or ▼ to preferred list and press to select.

The display shows the most recent entry at the top of the list.

4 ▲ or ▼ to view the list.

Press the **PTT** button to start a Private Call with the current selected alias or ID.

Missed Call Screen

Whenever a call is missed, your radio displays a missed call message in the notification list. The display shows `Missed Calls`.

Do one of the following:

- Press ⊞ to view the missed call ID. The missed call log list appears on display.
- Press ⊞ to store or delete the entry.

Storing an Alias from a Call List

You can also store an ID without an alias.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Call Log` and press ⊞ to select.

3 ▲ or ▼ to the required list and press ⊞ to select.

4 ▲ or ▼ to `Store` and press ⊞ to select.

A blinking cursor appears. If needed, key in the alias for that ID and press ⊞. The display shows positive mini notice.

Deleting a Call from a Call List

1 ⊞ to access the menu.

2 ▲ or ▼ to `Call Log` and press ⊞ to select.

3 ▲ or ▼ to the required list and press ⊞ to select.

When you select a call list and it contains no entries, the display shows `List Empty`, and sounds a low tone if Keypad Tones are turned on (see **Turning Keypad Tones On or Off** on page 106).

4 ▲ or ▼ to the required alias or ID and press ⊞ to select.

5 ▲ or ▼ to `Delete Entry?` and press ⊞ to select.

6 Do one of the following:

- Press ⊞ to select `Yes` to delete the entry. The display shows `Entry Deleted`.
- ▲ or ▼ to `No`, and press the ⊞ button to return to the previous screen.

Viewing Details from a Call List

1 to access the menu.

2 or to Call Log and press to select.

3 or to the required list and press to select.

4 or to the required alias or ID and press to select.

5 or to View Details and press to select.

Display shows details.

Call Alert Operation

Call Alert paging enables you to alert a specific radio user to call you back when they are able to do so.

This feature is applicable for subscriber aliases or IDs only and is accessible through the menu via Contacts or manual dial.

Receiving and Responding to a Call Alert

When you receive a Call Alert page, you see the notification list listing a Call Alert with the alias or ID of the calling radio on the display.

When you hear a repetitive tone and the LED blinks yellow, do one of the following:

- Press the **PTT** button while the display still shows the Call Alert in the Notification List to respond with a Private Call.
- Press to exit the Notification List. The alert is moved to the Missed Call Log.

See **Notification List** on page 104 *for details about the Notification List.*

See **Call Log Features** on page 64 *for details about the Missed Call List.*

Making a Call Alert from the Contact List

1 to access the menu.

2 or to Contacts and press to select.

3 Use one of the steps described next to select the required subscriber alias or ID:

- select the subscriber alias or ID directly

– ▲ or ▼ to the required subscriber alias or ID and press ⊞ to select.

- use the Manual Dial menu

  – ▲ or ▼ to Manual Dial and press ⊞ to select.

  – ▲ or ▼ to Radio Contact and press ⊞ to select.

  – The first line of the display shows Radio Number: , the second line of the display shows a blinking cursor. Enter the subscriber ID you want to page and press ⊞.

4 ▲ or ▼ to Call Alert and press ⊞ to select.

The display shows Call Alert and the subscriber alias or ID, indicating that the Call Alert has been sent.

The LED lights up solid green when your radio is sending the Call Alert.

If the Call Alert acknowledgement is received, the display shows positive mini notice.

If the Call Alert acknowledgement is not received, the display shows negative mini notice.

Making a Call Alert with the One Touch Access Button

Press the programmed **One Touch Access** button to make a Call Alert to the predefined alias or ID.

The display shows Call Alert and the subscriber alias or ID, indicating that the Call Alert has been sent.

The LED lights up solid green when your radio is sending the Call Alert.

If the Call Alert acknowledgement is received, the display shows positive mini notice.

If the Call Alert acknowledgement is not received, the display shows negative mini notice.

Emergency Operation

An Emergency Alarm is used to indicate a critical situation. You are able to initiate an Emergency at any time on any screen display even when there is activity on the current channel.

Your dealer can set the duration of a button press for the programmed **Emergency** button, except for long press, which is similar with all other buttons:

The **Emergency** button is assigned with the Emergency On/Off feature. Check with your dealer for the assigned operation of the **Emergency** button.

Note: If the short press for the **Emergency** button is assigned to turn on the Emergency mode, then the long press for the **Emergency** button is assigned to exit the Emergency mode.

If the long press for the **Emergency** button is assigned to turn on the Emergency mode, then the short press for the **Emergency** button is assigned to exit the Emergency mode.

Your radio supports **three** Emergency Alarms:

- Emergency Alarm
- Emergency Alarm with Call
- Emergency Alarm with Voice to Follow

Note: Only **ONE** of the Emergency Alarms above can be assigned to the programmed **Emergency** button.

In addition, each alarm has the following types:

- **Regular** – Radio transmits an alarm signal and shows audio and/or visual indicators.
- **Silent** – Radio transmits an alarm signal without any audio or visual indicators. Radio receives calls without any sound through the radio's speaker, until you press the **PTT** button to initiate the call.
- **Silent with Voice** – Radio transmits an alarm signal without any audio or visual indicators, but allow incoming calls to sound through the radio's speaker.

Receiving an Emergency Alarm

On receiving an emergency alarm the emergency icon appears, a tone sounds, the LED blinks red and the radio displays the emergency caller alias. If more than one alarm has occurred all emergency caller aliases are displayed in an Alarm List.

1 When receiving an emergency alarm, do one of the following:

- If a single emergency call alias is displayed, press to view more details. press again to view your action details.
- If the multiple emergency caller aliases are displayed in the Alarm List, or to the required alias and press to view more details. Press again to view your action items.

2 Press and select Yes to exit the Alarm List. To revisit the Alarm List, press to access the menu and select `Alarm List`.

Responding to an Emergency Alarm

1 In the Alarm List, ◀ or ▶ to the required alias.

2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

If the Channel Free Indication feature is enabled, you will hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is now available for use.

3 Press **PTT** button to transmit non-emergency voice to the same group that the Emergency Alarm was targeted to.

Emergency voice can only be transmitted by the emergency initiating radio. All other radios (including the emergency receiving radio) transmit non-emergency voice.

The LED lights up solid green. Your radio remains in the Emergency mode.

4 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

5 Release the PTT button to listen.

When the emergency initiating radio responds, the LED blinks green, the LED blinks green, the radio unmutes and the response sounds through the radio's speaker.You see the Group Call icon, the group ID, and transmitting radio ID on your display.

6 Your radio displays the Alarm List.

Sending an Emergency Alarm

This feature allows you to send an Emergency Alarm, a non-voice signal, which triggers an alert indication on a group of radios.

If your radio is set to Silent, it will not display any audio or visual indicators during Emergency mode.

Press the programmed **Emergency On** button.

The display shows `Tx Alarm` and the destination alias. The LED lights up solid green and the Emergency icon appears on the Home screen display.

When an Emergency Alarm acknowledgement is received, the Emergency tone sounds and the LED blinks green. The display shows `Alarm Sent`.

If your radio does not receive an Emergency Alarm acknowledgement, and after all retries have been exhausted, a tone sounds and the display shows `Alarm Failed`.

Radio exits the Emergency Alarm mode and returns to the Home screen.

Sending an Emergency Alarm with Call

This feature allows you to send an Emergency Alarm to a group of radios. Upon acknowledgement by a radio within the group, the group of radios can communicate over a programmed Emergency channel.

If your radio is set to Silent, it will not display any audio or visual indicators during Emergency mode, or allow any received calls to sound through the radio's speaker, until you press the **PTT** button to initiate the call.

If your radio is set to Silent with Voice, it will not display any audio or visual indicators during Emergency mode, but allow incoming calls to sound through the radio's speaker. The indicators will only appear once you press the **PTT** button to initiate, or respond to, the call.

1 Press the programmed **Emergency On** button.

The display shows `Tx Alarm` and the destination alias. The LED lights up solid green and the Emergency icon appears on the Home screen display.

When an Emergency Alarm acknowledgment is received, the Emergency tone sounds and the LED blinks green. The display shows `Alarm Sent`.

2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press **PTT** button to make the call.

The LED lights up solid green and the Group icon appears on the display.

4 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

5 Release the **PTT** button to listen.

If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond.

6 Press the **PTT** button to respond.

7 Once your call ends, press **Emergency Off** button to exit the Emergency mode.

The radio returns to the Home screen.

Sending an Emergency Alarm with Voice to Follow

This feature allows you to send an Emergency Alarm to a group of radios. Your radio's microphone is automatically activated, allowing you to communicate with the group of radios without pressing the **PTT** button.

This activated microphone state is also known as "hot mic".

If your radio has Emergency Cycle Mode enabled, repetitions of hot mic and receiving period are made for a programmed duration.

Note: During Emergency Cycle Mode, received calls sound through the radio's speaker.

If you press the **PTT** button during the programmed programmed receiving period, you will hear a prohibit tone, indicating that you should release the **PTT** button. The radio ignores the **PTT** press and remains in Emergency mode.

Note: If you press the PTT button during hot mic, and continue to press it after the hot mic duration expires, the radio continues to transmit until you release the PTT button.

If your radio is set to Silent, it will not display any audio or visual indicators during Emergency mode, or allow any received calls to sound through the radio's speaker, until the programmed hot mic transmission period is over, and you press the **PTT** button.

If your radio is set to Silent with Voice, it will not display any audio or visual indicators during Emergency mode when you are making the call with hot mic, but allow sound through the radio's speaker when the target radio responds after the programmed hot mic transmission period is over. The indicators will only appear when you press the **PTT** button.

Note: If the Emergency Alarm request fails, the radio does not retry to send the request, and enters the hot mic state directly.

1 Press the programmed **Emergency On** button.

The display shows `Tx Alarm` and the destination alias. The LED lights up solid green and the Emergency icon is displayed.

2 Once the display shows `Alarm Sent`, speak clearly into the microphone.

When hot mic has been enabled, the radio automatically transmits without a **PTT** press until the hot mic duration expires. While transmitting, the LED lights up solid green and the Emergency icon appears on the display.

3 The radio automatically stops transmitting when the cycling duration between hot mic and receiving calls expires, if Emergency Cycle Mode is enabled.

4 Once the hot mic duration expires, the radio automatically stops transmitting. To transmit again, press the **PTT** button.

Reinitiating an Emergency Mode

Note: This feature is only applicable to the radio sending the Emergency Alarm.

There are two instances where this can happen:

- You change the channel while the radio is in Emergency mode. This exits the Emergency mode. If Emergency

Alarm is enabled on this new channel, the radio reinitiates Emergency.

- You press the programmed **Emergency On** button during an Emergency initiation/transmission state. This causes the radio to exit this state, and to reinitiate Emergency.

Exiting Emergency Mode

Note: This feature is only applicable to the radio sending the Emergency Alarm.

Your radio exits Emergency mode when **one** of the following occurs:

- Emergency Alarm acknowledgement is received (for **Emergency Alarm** only)
- All retries to send the alarm have been exhausted
- The **Emergency Off** button is pressed.

Note: If your radio is powered off, it exits the Emergency mode. The radio will not reinitiate the Emergency mode automatically when it is turned on again.

If you change channels when your radio is in Emergency mode to a channel that has no emergency system configured, `No Emergency` is shown on your display.

Text Message Features

Your radio is able to receive data, for example a text message, from another radio or an e-mail application.

The **maximum** length of characters for a text message, including the subject line (seen when receiving message from an e-mail application), is **140**whereas for receiving this is 280 characters..

Note: Long press at any time to return to the Home screen.

Writing and Sending a Text Message

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	a. ⊞ to access the menu. b. ▲ or ▼ to `Messages` and press ⊞ to select.

2 ▲ or ▼ to Compose and press ⊞ to select.

A blinking cursor appears.

3 Use the keypad to type your message.

Press ◀ to move one space to the left. Press ▶ or the 0# key to move one space to the right. Press the *< key to delete any unwanted characters. Long press 0# to change text entry method.

4 Press ⊞ once message is composed.

5 Depending on whether you want to send, save, re-edit, or delete the newly composed message, do one of the following.

- ▲ or ▼ to Send, and press ⊞ to send the message.
- ▲ or ▼ to Save, and press ⊞ to save the message to the Drafts folder.
- ↩ to edit the message.
- ↩ again to choose between deleting the message or saving it to the Drafts folder.

The display shows transitional mini notice, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows positive mini notice.

If the message cannot be sent, a low tone sounds and the display shows negative mini notice.

If the text message fails to send, the radio returns you to the Resend option screen (see **Managing Fail-to-Send Text Messages** on page 77

Sending a Quick Text Message

Your radio supports a maximum of 50 Quick Text messages as programmed by your dealer.

While Quick Text messages are predefined, you can edit each message before sending it.

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	a. ⊛ to access the menu. b. ▲ or ▼ to Messages and press ⊛ to select.

2 ▲ or ▼ to Quick Text and press ⊛ to select.

3 ▲ or ▼ to the required Quick Text and press ⊛ to select.

A blinking cursor appears.

4 Use the keypad to edit the message, if required.

Press ◀ to move one space to the left. Press ▶ or the #⇧ key to move one space to the right. Press the *⇦ key to delete any unwanted characters. Long press #⇧ to change text entry method.

5 Press ⊛ once message is composed.

6 Depending on whether you want to send, save, re-edit, or delete the newly composed message, do one of the following.

- ▲ or ▼ to Send, and press ⊛ to send the message.
- ▲ or ▼ to Save, and press ⊛ to save the message to the Drafts folder.
- ↩ to edit the message.
- ↩ again to choose between deleting the message or saving it to the Drafts folder.

7 If you are sending the message, select the recipient by

- ▲ or ▼ to the required alias or ID and press ⊛ to select.
- ▲ or ▼ to Manual Dial, and press ⊛ to select. The first line of the display shows Radio Number:. The

second line of the display shows a blinking cursor. Key in the subscriber alias or ID and press .

The display shows , transitional mini notice, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows positive mini notice.

If the message cannot be sent, a low tone sounds and the display shows negative mini notice.

If the text message fails to send, the radio returns you to the Resend option screen (see **Managing Fail-to-Send Text Messages** on page 77).

Sending a Quick Text Message

Press the programmed **One Touch Access** button to send a predefined Quick Text message to a predefined alias or ID.

The display shows transitional mini notice, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows positive mini notice.

If the message cannot be sent, a low tone sounds and the display shows negative mini notice.

If the text message fails to send, the radio returns you to the Resend option screen (see **Managing Fail-to-Send Text Messages** on page 77).

Accessing the Drafts Folder

You can save a text message to send it at a later time.

If a **PTT** button press or a mode change causes the radio to exit the text message writing/editing screen while you are in the process of writing or editing a text message, your current text message is automatically saved to the Drafts folder.

The most recent saved text message is always added to the top of the Drafts list.

The Drafts folder stores a maximum of ten (10) last saved messages. When the folder is full, the next saved text message automatically replaces the oldest text message in the folder.

Note: Long press at any time to return to the Home screen.

Viewing a Saved Text Message

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	a. ⊛ to access the menu. b. ▲ or ▼ to Messages and press ⊛ to select.

2 ▲ or ▼ to Drafts and press ⊛ to select.

3 ▲ or ▼ to the required message and press ⊛ to select.

Editing and Sending a Saved Text Message

1 Press ⊛ again while viewing the message.

2 ▲ or ▼ to Edit and press ⊛ to select.

A blinking cursor appears.

3 Use the keypad to type your message.

Press ◀ to move one space to the left. Press ▶ or the #⇧ key to move one space to the right. Press the *⌫ key to delete any unwanted characters. Long press #⇧ to change text entry method.

4 Press ⊛ once message is composed.

5 Select the message recipient by

- ▲ or ▼ to the required alias or ID and press ⊛ to select.
- ▲ or ▼ to Manual Dial, and press ⊛ to select. The first line of the display shows Radio Number:. The second line of the display shows a blinking cursor. Key in the subscriber alias or ID and press ⊛.

The display shows transitional mini notice, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows positive mini notice.

If the message cannot be sent, a low tone sounds and the display shows negative mini notice.

If the text message cannot be sent, it is moved to the Sent Items folder and marked with a Send Failed icon.

Deleting a Saved Text Message from Drafts

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	a. ⊞ to access the menu. b. ▲ or ▼ to `Messages` and press ⊞ to select.

2 ▲ or ▼ to `Drafts` and press ⊞ to select.

3 ▲ or ▼ to the required message and press ⊞ to select.

4 Press ⊞ again while viewing the message.

5 ▲ or ▼ to `Delete` and press ⊞ to delete the text message.

Managing Fail-to-Send Text Messages

You can select one of the following options while at the `Resend` option screen:

- Resend
- Forward
- Edit

Note: If the channel type (i.e. conventional digital or Capacity Plus or Linked Capacity Plus) is not a match, you can only edit and forward a Fail-to-Send message.

Resending a Text Message

Press ⊞ to resend the same message to the same subscriber/group alias or ID.

If the message is sent successfully, a tone sounds and the display shows positive mini notice.

If the message cannot be sent, the display shows negative mini notice.

Forwarding a Text Message

Select Forward to send the message to another subscriber/ group alias or ID.

1 ▲ or ▼ to Forward and press ⊛ to select.

2 Select the message recipient by

- ▲ or ▼ to the required alias or ID and press ⊛ to select.
- ▲ or ▼ to Manual Dial, and press ⊛ to select. The first line of the display shows Radio Number:. The second line of the display shows a blinking cursor. Key in the subscriber alias or ID and press ⊛.

The display shows Text Message: <Subscriber/Group Alias or ID>, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows positive mini notice.

If the message cannot be sent, a low tone sounds and the display shows negative mini notice.

Editing a Text Message

Select Edit to edit the message before sending it.

Note: If a subject line is present (for messages received from an e-mail application), you cannot edit it.

1 ▲ or ▼ to Edit and press ⊛ to select.

A blinking cursor appears.

2 Use the keypad to edit your message.

Press ◀ to move one space to the left. Press ▶ or the #⇧ key to move one space to the right. Press the *⇦ key to delete any unwanted characters. Long press #⇧ to change text entry method.

3 Press ⊛ once message is composed.

4 Depending on whether you want to send, save, re-edit, or delete the newly composed message, do one of the following.

- ▲ or ▼ to Send, and press ⊛ to send the message.
- ▲ or ▼ to Save, and press ⊛ to save the message to the Drafts folder.

- to edit the message.
- again to choose between deleting the message or saving it to the Drafts folder.

5 If you are sending the message, select the recipient by

- or to the required alias or ID and press to select.
- or to `Manual Dial`, and press to select. The first line of the display shows `Radio Number:`. The second line of the display shows a blinking cursor. Key in the subscriber alias or ID and press .

The display shows `Text Message: <Subscriber/Group Alias or ID>`, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows positive mini notice.

If the message cannot be sent, a low tone sounds and the display shows negative mini notice.

Managing Sent Text Messages

Once a message is sent to another radio, it is saved in Sent Items. The most recent sent text message is always added to the top of the Sent Items list.

The Sent Items folder is capable of storing a maximum of thirty (30) last sent messages. When the folder is full, the next sent text message automatically replaces the oldest text message in the folder.

Note: Long press at any time to return to the Home screen.

Viewing a Sent Text Message

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	a. to access the menu. b. or to `Messages` and press to select.

2 ▲ or ▼ to Sent Items and press ⊞ to select.

3 ▲ or ▼ to the required message and press ⊞ to select.

A subject line may be shown if the message is from an e-mail application.

The icon at the top right corner of the screen indicates the status of the message (see **Sent Item Icons** on page 24).

Sending a Sent Text Message

You can select one of the following options while viewing a sent text message:

- Resend
- Forward
- Edit
- Delete

Note: If the channel type (i.e. conventional digital or Capacity Plus or Linked Capacity Plus) is not a match, you can only edit, forward, or delete a Sent message.

1 Press ⊞ again while viewing the message.

2 ▲ or ▼ to one of the options described next and press ⊞ to select.

Option	Steps
Forward	Select Forward to send the selected text message to another subscriber/group alias or ID (see **Forwarding a Text Message** on page 78).
Edit	Select Edit to edit the selected text message before sending it (see **Editing a Text Message** on page 78).

Option	Steps
Delete	Select Delete to delete the text message.
Resend	Select Resend to resend the selected text message to the same subscriber/group alias or ID. The display shows transitional mini notice, confirming that the same message is being sent to the same target radio. If the message is sent successfully, a tone sounds and the display shows positive mini notice. If the message cannot be sent, a low tone sounds and the display shows negative mini notice. If the message fails to send, the radio returns you to the Resend option screen. Press ⊛ to resend the message to the same subscriber/group alias or ID. **Note:** Changing the volume, and pressing any button, except for ⊛, ▲, or ▼, returns you to the message. **Note:** The radio exits the Resend option screen if you press the **PTT** button to initiate a Private or Group Call, or to respond to a Group Call. The radio also exits the screen when it receives a

If you exit the message sending screen while the message is being sent, the radio updates the status of the message in the Sent Items folder without providing any indication in the display or via sound.

If the radio changes mode or powers down before the status of the message in Sent Items is updated, the radio cannot complete any In-Progress messages and automatically marks it with a Send Failed icon.

The radio supports a maximum of five (5) In-Progress messages at one time. During this period, the radio cannot send any new message and automatically marks it with a Send Failed icon.

Deleting All Sent Text Messages from Sent Items

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	a. ⊛ to access the menu. b. ▲ or ▼ to Messages and press ⊛ to select.

2 ▲ or ▼ to Sent Items and press ⊛ to select.

When you select Sent Items and it contains no text messages, the display shows List Empty, and sounds a low tone if Keypad Tones are turned on (see **Turning Keypad Tones On or Off** on page 106).

3 ▲ or ▼ to Delete All and press ⊛ to select.

4 Choose one of the following.

- ▲ or ▼ to Yes and ppress ⊛ to select. The display shows positive mini notice.
- ▲ or ▼ to No and press ⊛ to return to the previous screen.

Receiving a Text Message

When your radio receives a message, the display shows the alias or ID of the sender and the Message icon at the far left of the screen.

You can select Read when receiving a text message.

Note: The radio exits the Text Message alert screen and sets up a Private or Group Call to the sender of the messageif the **PTT** button is pressed when the radio is displaying the alert screen.

Reading a Text Message

1 ▲ or ▼ to Read? and press ⊛ to select.

Selected message in the Inbox opens.

A subject line may be shown if the message is from an e-mail application.

2 Do one of the following:

- Press ⊞ to return to the Inbox.
- Press ⊞ a second time to reply, forward, or delete the text message.

Managing Received Text Messages

Use the Inbox to manage your text messages. The Inbox is capable of storing a maximum of 30 messages.

Text messages in the Inbox are sorted according to the most recently received.

Your radio supports the following options for text messages:

- Reply
- Forward
- Delete
- Delete All

Note: If the channel type (i.e. conventional digital or Capacity Plus or Linked Capacity Plus) is not a match, you can only forward, delete, or delete all Received messages.

Note: Long press ⏻ at any time to return to the Home screen.

Viewing a Text Message from the Inbox

1 ⊞ to access the menu.

2 ▲ or ▼ to Messages and press ⊞ to select.

3 ▲ or ▼ to Inbox and press ⊞ to select.

4 ▲ or ▼ toview the messages.

A subject line may be shown if the message is from an e-mail application.

5 Do one of the following:

- Press ⊞ to select the current message, and press ⊞ again to reply, quick reply, forward, or delete that message.
- Long press ⏻ to return to the Home screen.

Viewing a Telemetry Status Text Message from the Inbox

1 to access the menu.

2 or to Messages and press to select.

3 or to Inbox and press to select.

4 or to the required message and press to select.

You cannot reply to a Telemetry Status text message.

The display shows Telemetry: <Status Text Message>.

5 Long press to return to the Home screen.

Replying to a Text Message from the Inbox

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	a. to access the menu. b. or to Messages and press to select.

2 or to Inbox and press to select.

3 or to the required message and press to select.

A subject line may be shown if the message is from an e-mail application.

4 Press once more to access the sub-menu.

5 Do one of the following:

- or to Reply and press to select.

- ▲ or ▼ to Quick Reply and press ⊞ to select.

A blinking cursor appears.

6 Use your keypad to write/edit your message.

7 Press ⊞ once message is composed.

The display shows transitional mini notice, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows positive mini notice,

If the message cannot be sent,a low tone sounds and the display shows negative mini notice,

If the message cannot be sent, the radio returns you to the Resend option screen (see **Managing Fail-to-Send Text Messages** on page 77).

Deleting a Text Message from the Inbox

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	a. ⊞ to access the menu. b. ▲ or ▼ to Messages and press ⊞ to select.

2 ▲ or ▼ to Inbox and press ⊞ to select.

3 ▲ or ▼ to the required message and press ⊞ to select.

A subject line may be shown if the message is from an e-mail application.

4 Press ⊞ once more to access the sub-menu.

5 ▲ or ▼ to Delete and press ⊞ to select.

6 ▲ or ▼ to Yes and press ⊞ to select.

The display shows positive mini notice and the screen returns to the Inbox.

Deleting All Text Messages from the Inbox

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	a. ⊞ to access the menu. b. ▲ or ▼ to Messages and press ⊞ to select.

2 ▲ or ▼ to Inbox and press ⊞ to select.

When you select Inbox and it contains no text messages, the display shows List Empty, and sounds a low tone if Keypad Tones are turned on (see **Turning Keypad Tones On or Off** on page 106).

3 ▲ or ▼ to Delete All and press ⊞ to select.

4 ▲ or ▼ to Yes and press ⊞ to select.

The display shows positive mini notice.

Job Tickets

Your radio is able to receive Job Tickets, which are messages from the dispatcher listing out tasks that need to be performed.

You can respond to Job Tickets in order to sort them into Job Ticket Folders. By default, the folders are “All", "New", "Started", and "Completed". Check with your dealer or system administrator for an additional 10 folders.

Your radio supports a maximum of 100 Job Tickets, all of which can be seen in the "All" folder. New Job Tickets and Job Tickets with recent change in state are listed first. Upon reaching the maximum number of Job Tickets, the next Job Ticket automatically replaces the last Job Ticket in your radio.

Note: Job Tickets are retained even after radio is powered down and powered up again.

Accessing the Job Ticket Folder

Access the Job Ticket folder.

Radio Control	Steps
Programmed Job Ticket button	a. Press the programmed **Job Ticket** button. b. ▲ or ▼ to the required folder and press ⊛ to select. **Note:** You can also press #⃣ and the corresponding number key (1–9) to access the required folder.
Menu	a. ⊛ to access the menu. b. ▲ or ▼ to `Job Tickets` and press ⊛ to select. c. ▲ or ▼ to the required folder and press ⊛ to select. **Note:** You can also press #⃣ and the corresponding number key (1–9) to access the required folder. d. ▲ or ▼ to the required Job Ticket and press ⊛ to select.

Responding to the Job Ticket

Respond to the Job Ticket.

Radio Control	Steps
Programmed Job Ticket button	a. Press the programmed **Job Ticket** button. b. ▲ or ▼ to the required folder and press ⊛ to select. **Note:** You can also press #⃣ and the corresponding number key (1–9) to access the required folder.
Menu	a. ⊛ to access the menu b. ▲ or ▼ to `Job Tickets` and press ⊛ to select c. ▲ or ▼ to the required folder and press ⊛ to select. **Note:** You can also press #⃣ and the corresponding number key

The display shows transitional mini notice, confirming your message being sent.

If the message is sent, a tone sounds and the display shows positive mini notice.

If the message is not sent, a low tone sounds and the display shows negative mini notice.

Deleting a Job Ticket

Delete a Job Ticket.

Radio Control	Steps
Programmed Job Ticket button	a. Press the programmed **Job Ticket** button. b. ▲ or ▼ to `All` and press ⊞ to select
Menu	a. ⊞ to access the menu b. ▲ or ▼ to `Job Tickets` and press ⊞ to select c. ▲ or ▼ to `All` and press ⊞ to select d. ▲ or ▼ to the required Job Ticket and press ⊞ to select. **Note:** At Step 4, while viewing the Job Ticket, press *◁ to delete. e. Press ⊞ again while viewing the Job Ticket. f. ▲ or ▼ to `Delete` and press ⊞ to select

Privacy

If enabled, this feature helps to prevent eavesdropping by unauthorized users on a channel by the use of a software-based scrambling solution. The signaling and user identification portions of a transmission are not scrambled.

Your radio must have privacy enabled on the channel to send a privacy-enabled transmission, although this is not a necessary requirement for receiving a transmission. While on a privacy-enabled channel, the radio is still able to receive clear (unscrambled) transmissions.

Your radio supports two types of privacy:

- Basic Privacy
- Enhanced Privacy.

Only **ONE** of the privacy types above can be assigned to the radio.

To unscramble a privacy-enabled call or data transmission, your radio must be programmed to have the same Privacy Key (for Basic Privacy), OR the same Key Value and Key ID (for Enhanced Privacy) as the transmitting radio.

If your radio receives a scrambled call that is of a different Privacy Key, OR a different Key Value and Key ID, you will either hear a garbled transmission (Basic Privacy) or nothing at all (Enhanced Privacy).

If the radio has a privacy type assigned, the Home screen shows the Secure or Unsecure icon, except when the radio is sending or receiving an Emergency call or alarm.

The LED lights up solid green while the radio is transmitting and blinks green rapidly when the radio is receiving an ongoing privacy-enabled transmission.

You can access this feature by

- Pressing the programmed **Privacy** button to toggle privacy on or off.
- Using the Radio Menu as described by the steps described next.

Note: Some radio models may not offer this Privacy feature. Check with your dealer or system administrator for more information.

1 to access the menu.

2 or to Utilities and press to select.

3 or to Radio Settings and press to select.

4 or to Privacy and press to select.

You can also use or to change selected option.

5 Press to enable/disable Privacy.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Covert Mode

Your radio is capable of Covert Mode. During covert mode, all keypad and programmed button access are blocked. When enabled, all visual indications (display, LED's and backlight) are enabled.

This feature allows audio or tone only via a wired accessory or a Bluetooth accessory.

Entering Covert Mode

Press the button and the 2, 5, and 8 numeric keys in tandem in home screen.

Exiting Covert Mode

To exit Covert Mode, do one of the following:

- Press the button and the 2, 5, and 8 numeric keys in tandem. Radio will go back to normal mode.
- Power cycle the radio via the On/Off button.

Dual Tone Multi Frequency (DTMF)

The Dual Tone Multi Frequency (DTMF) feature allows the radio to operate in a radio system with an interface to telephone systems.

1 Press and hold the **PTT** button to initiate a DTMF call.

2 Enter the desired number, * or #.

You can turn off the DTMF tone by disabling all radio tones and alerts (see **Turning the Radio Tones/Alerts On or Off** on page 108).

Multi-Site Controls

These features are applicable when your current radio channel is part of an IP Site Connect or Linked Capacity Plus configuration.

See **IP Site Connect** on page 19 and **Linked Capacity Plus** on page 20 for more details about these configurations.

Starting an Automatic Site Search

Note: The radio **only** scans for a new site if the current signal is weak or when the radio is unable to detect any signal from the current site. If the RSSI value is strong, the radio remains on the current site.

Start Automatic Site search by

Radio Control	Description
Site Lock On/Off button	Press the programmed **Site Lock On/Off** button to toggle the start/stop automatic site search.
Radio menu	a. to access the menu. b. or to Utilities and press to select. c. or to Radio Settings and press to select. d. or to Site Roaming and press to select. e. or to Site Lock and press to select.

If the current channel is

- a multi-site channel with an attached roam list **AND**
- is out of range,

the radio also performs an automatic site search (that is the site is unlocked) during

- a **PTT** button press or
- data transmission.

A tone sounds and the display shows Site Unlocked.

The radio then returns to the Home screen. The display shows the Site Roaming icon and channel alias.

The LED blinks yellow rapidly when the radio is actively searching for a new site, and turns off once the radio locks on to a site.

Stopping an Automatic Site Search

When your radio is actively searching for a new site, you can stop the search by

Radio Control	Description
Site Lock On/Off button	Press the programmed **Site Lock On/Off** button to toggle the start/stop automatic site search.
Radio menu	a. to access the menu. b. or to Utilities and press to select. c. or to Radio Settings and press to select. d. or to Site Roaming and press to select. e. or to Site Lock and press to select.

A tone sounds and the display shows Site Locked.

The radio then returns to the Home screen. The LED turns off and the display shows the channel alias.

Starting a Manual Site Search

Start a Manual Site Search by

Radio Control	Description
Manual Site Roam button	Press the programmed **Manual Site Roam** button to start the manual site search.
Radio menu	a. to access the menu. b. or to Utilities and press to select. c. or to Radio Settings and press to select. d. or to Site Roaming and press to select. e. or to Active Search and press to select.

A tone sounds, the display shows Finding Site, and the LED blinks green.

If a new site is found, a tone sounds and the LED turns off. The display shows Site <Alias> Found.

If there is no available site within range, a tone sounds and the LED turns off. The display shows Out of Range.

If a new site is within range, but the radio is unable to connect to it, a tone sounds and the LED turns off. The display shows `Channel Busy`.

The radio lastly returns to the Home screen.

Security

You can enable or disable any radio in the system. For example, you might want to disable a stolen radio, to prevent the thief from using it, and enable that radio, when it is recovered.

Note: Performing Radio Disable and Enable is limited to radios with these functions enabled. Check with your dealer or system administrator for more information.

Radio Disable

1 Access this feature by

Radio Controls	Steps
Radio Disable button	a. Press the programmed **Radio Disable** button. b. ▲ or ▼ to the required alias or ID and press ⊞ to select.
Radio menu	a. ⊞ to access the menu. b. ▲ or ▼ to `Contacts` and press ⊞ to select. The entries are alphabetically sorted. c. Use one of the steps described next to select the required subscriber alias or ID • select the required alias or ID directly – ▲ or ▼ to the required alias or ID and press ⊞ to select. • use the `Manual Dial` menu – ▲ or ▼ to `Manual Dial` and press ⊞ to select. – ▲ or ▼ to `Radio Number` and press ⊞ to select. – The first line of the display shows `Radio Number:` . the second line of the display shows a blinking cursor. Use the keypad to enter the

If successful, the radio sounds a positive indicator tone and the display shows positive mini notice.

If not successful, the radio sounds a negative indicator tone and the display shows negative mini notice.

Do not press ⌂ during the Radio Disable operation as you will not get an acknowledgement message.

Radio Enable

1 Access this feature by

Radio Controls	Steps
Radio Enable button	a. Press the programmed **Radio Enable** button. b. ▲ or ▼ to the required alias or ID and press ⊞ to select.
Radio menu	a. ⊞ to access the menu. b. ▲ or ▼ to `Contacts` and press ⊞ to select. The entries are alphabetically sorted. c. Use one of the steps described next to select the required subscriber alias or ID • select the required alias or ID directly – ▲ or ▼ to the required alias or ID and press ⊞ to select. • use the `Manual Dial` menu – ▲ or ▼ to `Manual Dial` and press ⊞ to select. – ▲ or ▼ to `Radio Number` and press ⊞ to select. – The first line of the display shows `Radio Number:` . the second line of the display shows a blinking cursor. Use the keypad to enter the

If successful, the radio sounds a positive indicator tone and the display shows positive mini notice.

If not successful,the radio sounds a negative indicator tone and the display shows negative mini notice.

Do not press ⏻ during the Radio Enable operation as you will not get an acknowledgement message.

Lone Worker

This feature raises an emergency if there is no user activity, such as any radio button press or activation of the channel selector, for a predefined time.

Before raising the emergency, when the inactivity timer expires, the radio warns the user via an audio indicator.

If there is still no acknowledgment by the user before the predefined reminder timer expires, the radio initiates an Emergency Alarm.

Only **one** of the following Emergency Alarms can be assigned to this feature:

- Emergency Alarm
- Emergency Alarm with Call
- Emergency Alarm with Voice to Follow

The radio remains in the emergency state allowing voice messages to proceed until action is taken. See **Emergency Operation** on page 67 on ways to exit Emergency.

Note: This feature is limited to radios w function enabled. Check with yo

You hear a continuous tone.

2 Do one of the following:

- Enter your current four-digit password with the radio's keypad. The second line of the display shows ●●●●.

  Press ⊞ to proceed.

- Enter your current four-digit password. Press ◀ or ▶ to edit each digit's numeric value. Each digit changes to ●. Press ▶ to move to next digit. Press ⊞ to confirm your selection.

You hear a positive indicator tone for every digit entered.

Press ◀ to remove the last ● on the display. You hear a negative indicator tone, if you press ◀ when the second line of the display is empty, or if you press more than four digits.

If the password is correct, your radio proceeds to power up. See **Powering Up the Radio** on page 11.

If the password is incorrect, the display shows `Wrong Password`. Repeat Steps **1** and **2** . Password less than four digits is incorrect.

After the third incorrect password, the display shows `Wrong Password` and then, shows `Radio Locked`. A tone sounds and the LED double blinks yellow.

Your radio enters into locked state for 15 minutes, and responds to inputs from **On/Off Button** and programmed **Backlight** button only.

Note: The radio is unable to receive any call, including emergency calls, in locked state.

Unlocking the Radio from Locked State

1 If your radio was powered down after being in the locked state, power up the radio.

A tone sounds and the LED double blinks yellow. The display shows `Radio Locked`.

2 Wait for 15 minutes.

Your radio restarts the 15 minutes timer for locked state when you power up.

3 Repeat Steps and **2** in **Accessing the Radio from Password** on page 97.

Turning the Password Lock On or Off

1. to access the menu.
2. or to Utilities and press to select.
3. or to Radio Settings and press to select.
4. or to Passwd Lock and press to select.
5. Enter the four-digit password.

   See Step 2 in **Accessing the Radio from Password** on page 97.
6. Press to proceed.

   If the password is incorrect, the display shows Wrong Password, and automatically returns to the previous menu.
7. If the password entered in the previous step is correct, press to enable/disable password lock.

   The display shows ✓ beside Enabled.

   The ✓ disappears from beside Enabled.

Changing the Password

1. to access the menu.
2. or to Utilities and press to select.
3. or to Radio Settings and press to select.
4. or to Passwd Lock and press to select.
5. Enter the four-digit password.

   See Step 2 in **Accessing the Radio from Password** on page 97.
6. Press to proceed.

   If the password is incorrect, the display shows Wrong Password, and automatically returns to the previous menu.
7. If the password entered in the previous step is correct, or to Change Pwd and press to select.
8. Enter a new four-digit password.

   See Step 2 in **Accessing the Radio from Password** on page 97.

9 Reenter the previously entered four-digit password. See Step 2 in **Accessing the Radio from Password** on page 97

10 Press ⊞ to proceed.

If the reentered password matches the new password entered earlier, the display shows `Password Changed`.

If the reentered password does **NOT** match the new password entered earlier, the display shows `Passwords Do Not Match`.

The screen automatically returns to the previous menu.

Bluetooth Operation

This feature allows you to use your radio with a Bluetooth enabled device (accessory) via a wireless Bluetooth connection. Your radio supports both Motorola and COTS (Commercially available Off-The-Shelf) Bluetooth-enabled devices.

Bluetooth operates within a range of 10 meters (32 feet) line of sight.This is an unobstructed path between your radio and your Bluetooth-enabled device.

It is not recommended that you leave your radio behind and expect your Bluetooth-enabled device to work with a high degree of reliability when they are separated.

At the fringe areas of reception, both voice and tone quality will start to sound “garbled” or “broken”. To correct this problem, simply position your radio and Bluetooth-enabled device closer to each other (within the 10-meter/32 feet defined range) to reestablish clear audio reception. Your radio’s Bluetooth function has a maximum power of 2.5 mW (4 dBm) at the 10-meter/ 32 feet range.

Your radio can support up to 3 simultaneous Bluetooth connections with Bluetooth-enabled devices of unique types.For example, a headset, a scanner, and a PTT-Only Device (POD). Multiple connections with Bluetooth-enabled devices of the same type are not supported.

Refer to your respective Bluetooth-enabled device’s user manual for more details on your Bluetooth-enabled device’s full capabilities.

Turning Bluetooth On and Off

1 ⊞ to access the menu.

2 ▲ or ▼ to `Bluetooth` and press ⊞ to select.

3 ▲ or ▼ to `My Status` and press ⊞ to select.

The display shows `On` and `Off`. The current status is indicated by a ✓.

4 Do one of the following:

- ▲ or ▼ to On and press ⊞ to select. The display shows On and a ✓ appears left of the selected status.
- ▲ or ▼ to Off and press ⊞ to select. The display shows Off and a ✓ appears left of the selected status.

Finding and Connecting to a Bluetooth Device

Do not turn off your Bluetooth-enabled device or press ⌂ during the finding and connecting operation as this cancels the operation.

1. Turn on your Bluetooth-enabled device and place it in pairing mode. Refer to respective Bluetooth-enabled device's user manual.
2. On your radio, press ⊞ to access the menu.
3. ▲ or ▼ to Bluetooth and press ⊞ to select.
4. ▲ or ▼ to Devices and press ⊞ to select.
5. Do one of the following:
   - ▲ or ▼ to the required device and press ⊞ to select.
   - ▲ or ▼ to Find Devices to locate available devices. ▲ or ▼ to the required device and press ⊞ to select.
6. ▲ or ▼ to Connect and press ⊞ to select.

   Display shows Connecting to <Device>. Your Bluetooth-enabled device may require additional steps to complete the pairing. Refer to respective Bluetooth-enabled device's user manual.

If successful, the radio display shows <Device> Connected. A tone sounds and ✓ appears besides the connected device. The Bluetooth Connected icon appears on the status bar.

If unsuccessful, the radio display shows Connecting Failed.

Note: If pin code is required, use the same entry method as Step 2 in **Accessing the Radio from Password** on page 97.

Finding and Connecting from a Bluetooth Device (Discoverable Mode)

Do not turn off your Bluetooth or your radio during the finding and connecting operation as this may cancel the operation.

1. Turn Bluetooth On.

See **Turning Bluetooth On and Off** on page 100.

2 to access the menu.

3 ▲ or ▼ to `Bluetooth` and press to select.

4 ▲ or ▼ to `Find Me` and press to select.

Your radio can now be found by other Bluetooth-enabled devices for a programmed duration. This is called Discoverable Mode.

5 Turn on your Bluetooth-enabled device and pair it with your radio.

Refer to respective Bluetooth-enabled device's user manual.

Disconnecting from a Bluetooth Device

1 On your radio, press to access the menu.

2 ▲ or ▼ to `Bluetooth` and press to select.

3 ▲ or ▼ to `Devices` and press to select.

4 ▲ or ▼ to the required device and press to select.

5 ▲ or ▼ to `Disconnect` and press to select.

Display shows `Disconnecting from <Device>`. Your Bluetooth-enabled device may require additional steps to disconnect. Refer to respective Bluetooth-enabled device's user manual.

The radio display shows `<Device> Disconnected`. A positive indicator tone sounds and ✓ disappears beside the connected device. The Bluetooth Connected icon disappears on the status bar.

Switching Audio Route

You can toggle audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Press the programmed **Bluetooth Audio Switch** button.

- A tone sounds and display shows `Route Audio to Radio`.
- A tone sounds and display shows `Route Audio to Bluetooth`.

Viewing Device Details

1 to access the menu.

2 ▲ or ▼ to Bluetooth and press ⊞ to select.

3 ▲ or ▼ to Devices and press ⊞ to select.

4 ▲ or ▼ to the required device and press ⊞ to select.

5 ▲ or ▼ to View Details and press ⊞ to select.

Editing Device Name

You can edit the name of available Bluetooth-enabled devices.

1 ⊞ to access the menu.

2 ▲ or ▼ to Bluetooth and press ⊞ to select.

3 ▲ or ▼ to Devices and press ⊞ to select.

4 ▲ or ▼ to the required device and press ⊞ to select.

5 ▲ or ▼ to Edit Name and press ⊞ to select.

6 Press ◀ to move one space to the left. Press ▶ to move one space to the right. Press *< to delete any unwanted characters. Long press #⇧ to change text entry method.

A blinking cursor appears. Use the keypad to type the required zone.

7 The display shows Device Name Saved.

Deleting Device Name

You can remove a disconnected device from the list of Bluetooth-enabled devices.

1 ⊞ to access the menu.

2 ▲ or ▼ to Bluetooth and press ⊞ to select.

3 ▲ or ▼ to Devices and press ⊞ to select.

4 ▲ or ▼ to the required device and press ⊞ to select.

5 ▲ or ▼ to Delete and press ⊞ to select.

The display shows Device Deleted.

Bluetooth Mic Gain

Allows control of the connected Bluetooth-enabled device's microphone gain value.

1 to access the menu.

2 or to Bluetooth and press to select.

3 or to BT Mic Gain and press to select.

4 or to the BT Mic Gain type and the current values.

To edit values, press to select.

5 or to increase or to decrease values and press to select.

Notification List

Your radio has a Notification List that collects all your "unread" events on the channel, such as unread text messagestelemetry messages and missed calls. Unread Job Tickets are also stored in the notification list.

The Notification icon appears on the status bar when the Notification List has one or more events.

For TMS and missed call/call alert notification events, the maximum number are 30 TMS and 10 missed calls/call alerts. This maximum number depends on individual feature (job tickets or TMS or missed calls/call alerts) list capability.

Note: After the events are read, they are removed from the Notification List.

Accessing the Notification List

1 to access the menu.

2 or to Notification and press to select.

3 or to the required event and press to select.

Long press to return to the Home Screen.

Over-the-Air-Programming (OTAP)

Your radio can be updated by your dealer remotely, via OTAP, without needing to be physically connected. Additionally, some settings can also be configured via OTAP.

While undergoing OTAP, the LED blinks green.

Note: When the radio is receiving high volume data, the High Volume Data icon appears and channel is busy. A PTT button press at this time may cause a negative tone to sound.

Once the programming is complete, depending on your radio's configuration:

- A tone sounds, the display shows `Updating Restarting`, and your radio restarts (powers off and on again).
- Select between `Restart Now` or `Postpone`. Selecting Postpone allows your radio to return to the previous display, with an OTAP Timer icon visible, for a period of time before the automatic restart occurs.

Upon power up after the automatic restart occurs, the display shows `Sw Update Completed` if the OTAP update is successful or `Sw Update Failed` if the OTAP update is unsuccessful.

*See **Software Update*** on page 124 *for your updated software version.*

Utilities

Locking and Unlocking the Keypad

You can lock your radio's keypad to avoid inadvertent key entry.

To lock/unlock your radio's keypad.

Option	Steps
Locking the Keypad	a. ⊞ to access the menu. b. ▲ or ▼ to `Utilities` and press ⊞ to select. c. ▲ or ▼ to `Radio Settings` and press ⊞ to select. d. ▲ or ▼ to `Keypad Lock` and press ⊞ to select. You can also use ◀ or ▶ to change the selected option.
Unlocking the Keypad	Press ⊞ followed by *≺.

After the keypad is locked, the display shows `Keypad Locked` and returns to the Home screen.

After the keypad is unlocked, the display shows `Keypad Unlocked` and returns to the Home screen.

Turning Keypad Tones On or Off

You can enable and disable keypad tones if needed.

1. to access the menu.
2. or to `Utilities` and press to select.
3. or to `Radio Settings` and press to select.
4. or to `Tones/Alerts` and press to select.
5. or to `Keypad Tones` and press to select.

   You can also use or to change the selected option.

6. Press to enable/disable keypad tones.

   The display shows ✓ beside Enabled.

   The ✓ disappears from beside Enabled.

Turning the Option Board Feature(s) On or Off

A channel can support up to 6 option board features. Refer to your dealer or system administrator for more information.

Press the programmed **Option Board Feature** button to toggle the feature on or off.

Identifying Cable Type

You can select the type of cable your radio uses.

1. to access the menu.
2. or to `Utilities` and press to select.
3. or to `Radio Settings` and press to select.
4. or to `Cable Type` and press to select.

   At Step 4, you can also use or to change the selected option.

5. The current cable type is indicated by a ✓

Turning the Voice Operating Transmission (VOX) Feature On or Off

This feature allows you to initiate a hands-free voice activated call on a programmed channel. The radio automatically transmits, for a programmed period, whenever the microphone on the VOX-capable accessory detects voice.

Pressing the **PTT** button during radio operation will disable VOX. To re-enable VOX, do one of the following:

- Turn the radio off and power it on again
- Press the programmed **VOX** button to toggle the feature on or off or follow the steps described next to access this feature via the radio menu.

Note: Turning this feature on or off is limited to radios with this function enabled. Check with your dealer or system administrator for more information.

1 to access the menu.

2 or to Utilities and press to select.

3 or to Radio Settings and press to select.

4 or to VOX and press to select.

5 Press to disable/enable VOX.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Controlling the Display Backlight

You can enable or disable the radio's display backlight as needed. The setting also affects the Menu Navigation Buttons and keypad backlighting accordingly.

Press the programmed **Backlight** button to toggle the backlight settings, or follow the procedure described next to access this feature via the radio menu.

The display backlight and keypad backlighting are automatically turned off if the LED indicator is disabled (see **Turning the LED Indicator On or Off** on page 114).

1 to access the menu.

2 or to Utilities and press to select.

3 or to Radio Settings and press to select.

4 or to Backlight and press to select.

You can also use ◀ or ▶ to change the selected option.

5 Press ⊞ to enable/disable the display backlight.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Turning the Radio Tones/Alerts On or Off

You can enable and disable all radio tones and alerts (except for the incoming Emergency alert tone) if needed.

Press the programmed **All Tones/Alerts** button to toggle all tones on or off, or follow the procedure described next to access this feature via the radio menu.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Tones/Alerts` and press ⊞ to select.

5 ▲ or ▼ to `All Tones` and press ⊞ to select.

6 Press ⊞ to enable/disable all tones and alerts.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Setting the Tone Alert Volume Offset Level

You can adjust the Tone Alert Volume Offset level if needed. This feature adjusts the volume of the tones/alerts, allowing it to be higher or lower than the voice volume.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Tones/Alerts` and press ⊞ to select.

5 ▲ or ▼ to `Vol. Offset` and press ⊞ to select.

6 ▲ or ▼ to the required volume value.

The radio sounds a feedback tone with each corresponding volume value.

7 Do one of the following:

- Press ⊞ to keep the required displayed volume value.
- Press ↩ to exit without changing the current volume offset settings.
- Repeat Step **6** to select another volume value.

Turning the Talk Permit Tone On or Off

You can enable and disable the Talk Permit Tone if needed.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Tones/Alerts` and press ⊞ to select.

5 ▲ or ▼ to `Talk Permit` and press ⊞ to select.

You can also use ◀ or ▶ to change the selected option.

6 Press ⊞ to enable/disable the Talk Permit Tone.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Setting the Text Message Alert Tone

You can customize your radio's text message alert tone to Momentary or Repetitive for each entry in the Contacts list.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Contacts` and press ⊞ to select.

3 ▲ or ▼ to the required subscriber alias or ID and press ⊞ to select.

4 ▲ or ▼ to `Message Alert` and press ⊞ to select.

The display shows `Momentary` and `Repetitive`.

You can also use ◀ or ▶ to change the selected option.

5 ▲ or ▼ to the required setting and press ⊞ to enable

✓ appears besides selected setting.

Changing the Display Mode

You can change radio's display mode between Day or Night, as needed. This affects the color palette of the display.

Change the Display Mode

Radio Control	Steps
Programmed Display Mode Button	Press the programmed **Display Mode** button.
Menu	a. ⊞ to access the menu. b. ▲ or ▼ to `Utilities` and press ⊞ to select. c. ▲ or ▼ to `Radio Settings` and press ⊞ to select. d. ▲ or ▼ to `Display` and press ⊞ to select. The display shows `Day Mode` and `Night Mode`. **Note:** You can also use ◀ or ▶ to change the selected option. e. ▲ or ▼ to the required setting and press ⊞ to enable. ✓ appears besides selected setting.

Adjusting the Display Brightness

You can adjust radio's display brightness as needed.

Note: Display brightness cannot be adjusted when "Auto Brightness" is enabled.

Adjust the Display Brightness

Radio Control	Steps
Programmed Display Brightness Button	a. Press the programmed **Brightness** button. b. Decrease display brightness by pressing ◀ or increase the display brightness by pressing ▶. Select from setting of 1 to 8. Press ⊞ to confirm your entry.
Menu	a. ⊞ to access the menu. b. ▲ or ▼ to `Utilities` and press ⊞ to select. c. ▲ or ▼ to `Radio Settings` and press ⊞ to select. d. ▲ or ▼ to `Brightness` and press ⊞ to select. The display shows a progress bar. e. Decrease display brightness by pressing ◀ or increase the display brightness by pressing ▶. Select from setting of 1 to 8. Press ⊞ to confirm your entry.

Wallpaper Mode

Your radio displays the Wallpaper background on home screen. The user can select from 5 default wallpapers.

1. ⊞ to access the menu.
2. ▲ or ▼ to `Utilities` and press ⊞ to select.
3. ▲ or ▼ to `Radio Settings` and press ⊞ to select.
4. ▲ or ▼ to `Display` and press ⊞ to select.
5. ▲ or ▼ to `Wallpaper` and press ⊞ to select.

   You can also use ◀ or ▶ to change the selected option.

Screen Saver Mode

The screen saver feature allows the radio to save radio battery time. A `Screen Saver Pre Duration` is used to track the radio activities before entering screen saver mode.

Radio starts `Screen Saver Pre Duration` upon power up. Radio enters into screen saver mode when `Screen Saver Pre Duration` timer expires, the radio exits screen saver mode and responds to related transaction normally upon any user input and over the air transaction.

Radio restarts `Screen Saver Pre Duration` upon any user input and over the air transaction. After being in Screen Saver mode for 5 seconds, radio enters keypad lock state

automatically. When any audio or Bluetooth accessory is connected, battery saver mode is enabled, radio enters screen saver mode.

If there is any user input or over the air transaction, the radio exits screen saver mode and responds to user interaction. The `Screen Saver Pre Duration` is restarted and the radio goes back to screen saver mode when it expires.

Note: The screen saver mode is to help improve battery life.

Audio Accessory

The audio accessory has two modes: Normal and Battery Saver mode. When audio accessory is plugged in and the setting is in Battery Saver Mode, the radio restarts the timer and goes into screen saver mode. In this scenario, when there is any user input (including user input on radio and accessory attachment/detachment) or when receiving emergency alarm/call, the radio exits screen saver mode and responds to user event as normal. The Screen Saver timer restarts and the radio goes back to screen saver mode when the time allocated expires.

Note: This battery saver mode is to improve battery life. See Screen Saver box SRS for more details in this mode.

Auto Keypad Lock

You can enable/disable your radio's auto keypad lock to avoid inadvertent key entry.

1. to access the menu.
2. or to `Utilities` and press to select.
3. or to `Radio Settings` and press to select.
4. or to `Auto Keypad Lock` and press to select.
5. Do one of the following:
   - Press to enable Auto Keypad Lock. The display shows ✓ beside Enabled.
   - Press to disable Auto Keypad Lock. The ✓ disappears from beside Enabled.

Language

You can set your radio display to be in your required language.

1. to access the menu.

2 ▲ or ▼ to Utilities and press ⊞ to select.

3 ▲ or ▼ to Radio Settings and press ⊞ to select.

4 ▲ or ▼ to Languages and press ⊞ to select.

5 ▲ or ▼ to the required language and press ⊞ to enable. ✓ appears beside selected language.

Turning the LED Indicator On or Off

You can enable and disable the LED Indicator if needed.

1 ⊞ to access the menu.

2 ▲ or ▼ to Utilities and press ⊞ to select.

3 ▲ or ▼ to Radio Settings and press ⊞ to select.

4 ▲ or ▼ to LED Indicator and press ⊞ to select.

5 Press ⊞ to enable/disable the LED Indicator.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Voice Announcement

This feature enables the radio to audibly indicate the current Zone or Channel the user has just assigned, or programmable button press. This audio indicator can be customized per customer requirements. This is typically useful when the user is in a difficult condition to read the content shown on the display.

Toggle Voice Announcement On or Off.

Radio Control	Steps
Programmed Voice Announcement Button	Press the programmed **Voice Announcement** button.
Menu	a. ⊞ to access the menu. b. ▲ or ▼ to `Utilities` and press ⊞ to select. c. ▲ or ▼ to `Radio Settings` and press ⊞ to select. d. ▲ or ▼ to `Voice Announcement` and press ⊞ to select. **Note:** You can also use ◀ or ▶ to change the selected option. e. Do one of the following: • Press ⊞ to enable Voice Announcement. The display shows ✓ beside Enabled. • Press ⊞ to disable Voice Announcement. The ✓ disappears from beside Enabled.

Digital Mic AGC (Mic AGC-D)

This feature controls the your radio's microphone gain automatically while transmitting on a digital system. It suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of audio.

1. ⊞ to access the menu.
2. ▲ or ▼ to `Utilities` and press ⊞ to select.
3. ▲ or ▼ to `Radio Settings` and press ⊞ to select.

   You can also use ◀ or ▶ to change the selected option.
4. ▲ or ▼ to `Mic AGC-D` and press ⊞ to select.
5. Do one of the following:
   - Press ⊞ to enable **Mic AGC-D**. The display shows ✓ beside Enabled.
   - Press ⊞ to disable**Mic AGC-D**. The ✓ disappears from beside Enabled.

Intelligent Audio

Your radio can automatically adjust its audio volume to overcome background noise in the environment, inclusive of all

stationary and non-stationary noise sources. This feature is a Receive-only feature and does not affect Transmit audio.

Note: This feature is not applicable during a bluetooth session.

Toggle Intelligent Audio On or Off.

Radio Control	Steps
Programmed Intelligent Audio Button	Press the programmed **Intelligent Audio** button.
Menu	a. to access the menu. b. or to Radio Settings and press to select. c. or to Radio Settings and press to select. d. or to Intelligent Audio and press to select. **Note:** You can also use or to change the selected option. e. Do one of the following: • Press to enable Intelligent Audio. The display shows ✓ beside Enabled. • Press to disable Intelligent Audio. The ✓ disappears from beside Enabled.

*See **Accessories, page 126** for recommended Bluetooth-enabled audio accessories with in-built Automatic Volume Control for similar performance.*

Turning the Acoustic Feedback Suppressor Feature On or Off

This feature allows you to minimize acoustic feedback in received calls.

Toggle Acoustic Feedback Suppressor Features On or Off

Radio Control	Steps
Programmed Acoustic Feedback Suppressor Button	Press the programmed **Acoustic Feedback Suppressor** button.
Menu	a. to access the menu. b. or to Utilities and press to select. c. or to Radio Settings and press to select. d. or to AF Suppressor and press to select. **Note:** You can also use or to change the selected option. e. Do one of the following: • Press to enable Acoustic Feedback Suppressor. The display shows ✓ beside Enabled. • Press to disable Acoustic Feedback Suppressor. The ✓ disappears from beside Enabled.

Text Entry Configuration

You can configure the following settings for entering text on your radio:

- Word Predict
- Word Correct
- Sentence Cap
- My Words

Note: Press at any time to return to the previous screen or long press to return to the Home Screen. The radio exits the current screen once the inactivity timer expires.

Word Predict

Your radio can learn common word sequences that you often enter. It then predicts the next word you may want to use after you enter the first word of a common word sequence into the text editor.

1. to access the menu.
2. or to Utilities and press to select.
3. or to Radio Settings and press to select.
4. or to Text Entry and press to select.
5. or to Word Predict and press to select.

You can also use ◀ or ▶ to change the selected option.

6 Do one of the following:

- Press ⊞ to enable Word Predict. The display shows ✓ beside Enabled.
- Press ⊞ to disable Word Predict. The ✓ disappears from beside Enabled.

Word Correct

Supplies alternative word choices when the word entered into the text editor is not recognized by the in-built dictionary.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Text Entry` and press ⊞ to select.

5 ▲ or ▼ to `Word Correct` and press ⊞ to select.

You can also use ◀ or ▶ to change the selected option.

6 Do one of the following:

- Press ⊞ to enable Word Correct. The display shows ✓ beside Enabled.
- Press ⊞ to disable Word Correct. The ✓ disappears from beside Enabled.

Sentence Cap

Automatically enables capitalization for the first letter in the first word for every new sentence.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Text Entry` and press ⊞ to select.

5 ▲ or ▼ to `Sentence Cap` and press ⊞ to select.

6 Do one of the following:

- Press ⊞ to enable Sentence Cap. The display shows ✓ beside Enabled.
- Press ⊞ to disable Sentence Cap. The ✓ disappears from beside Enabled.

Viewing Custom Words

You can add your own custom words into your radio's in-built dictionary. Your radio maintains a list to contain these words.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Text Entry` and press ⊞ to select.

5 ▲ or ▼ to `My Words` and press ⊞ to select.

6 ▲ or ▼ to `List of Words` and press ⊞ to select.

Display shows the list of custom words.

Editing Custom Word

You can edit the custom words saved in your radio.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Text Entry` and press ⊞ to select.

5 ▲ or ▼ to `My Words` and press ⊞ to select.

6 ▲ or ▼ to `List of Words` and press ⊞ to select.

Display shows the list of custom words.

7 ▲ or ▼ to the required word and press ⊞ to select.

8 ▲ or ▼ to `Edit` and press ⊞ to select.

9 Use the keypad to edit your custom word.

Press ◀ to move one space to the left. Press ▶ or the #⇧ key to move one space to the right. Press the *⌫ key to delete any unwanted characters. Long press #⇧ to change text entry method. Press ⊞ once your custom word is completed.

The display shows transitional mini notice, confirming your custom word is being saved.

If the custom word is saved, a tone sounds and the display shows positive mini notice.

If the custom word is not saved, a low tone sounds and the display shows negative mini notice.

Adding Custom Word

You can add your own custom words into your radio's in-built dictionary.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Settings` and press ⊞ to select.

4 ▲ or ▼ to `Text Entry` and press ⊞ to select.

5 ▲ or ▼ to `My Words` and press ⊞ to select.

6 ▲ or ▼ to `Add New Word` and press ⊞ to select.

Display shows the list of custom words.

7 Use the keypad to edit your custom word.

Press ◀ to move one space to the left. Press ▶ or the #⇧ key to move one space to the right. Press the *⌫ key to delete any unwanted characters. Long press #⇧ to change text entry method. Press ⊞ once your custom word is completed.

The display shows transitional mini notice, confirming your custom word is being saved.

If the custom word is saved, a tone sounds and the display shows positive mini notice.

If the custom word is not saved, a low tone sounds and the display shows negative mini notice.

Deleting a Custom Word

You can delete the custom words saved in your radio.

1 to access the menu.

2 or to Utilities and press to select.

3 or to Radio Settings and press to select.

4 or to Text Entry and press to select.

5 or to My Words and press to select.

6 or to the required word and press to select.

7 or to Delete and press to select.

8 Choose one of the following.

- At Delete Entry?, press to select Yes. The display shows Entry Deleted.
- or to No and press to return to the previous screen.

Deleting All Custom Words

You can delete all custom words from your radio's in-built.

1 to access the menu.

2 or to Utilities and press to select.

3 or to Radio Settings and press to select.

4 or to Text Entry and press to select.

5 or to My Words and press to select.

6 or to Delete All and press to select.

7 Choose one of the following.

- At Delete Entry?, press to select Yes. The display shows Entry Deleted.
- or to No and press to return to the previous screen.

Accessing General Radio Information

Your radio contains information on the following:

- Battery
- Radio Alias and ID
- Firmware and Codeplug Versions
- Open-Source Software Information
- Software Update
- Site Information

Press at any time to return to the previous screen or long press to return to the Home screen. The radio exits the current screen once the inactivity timer expires.

Accessing the Battery Information

Displays information on your radio battery.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Info` and press ⊞ to select.

4 ▲ or ▼ to `Battery Info` and press ⊞ to select.

The display shows the battery information.

For **IMPRES** batteries **ONLY**: The display reads `Recondition Battery` if the battery requires reconditioning in an IMPRES charger. After the reconditioning process, the display then shows the battery information.

Checking the Radio Alias and ID

This feature displays the ID of your radio.

Press the programmed **Radio Alias and ID** button to check your radio alias and ID. You hear a positive indicator tone.

Follow the procedure described next to access this feature via the radio screen.

1 ⊞ to access the menu.

2 ▲ or ▼ to `Utilities` and press ⊞ to select.

3 ▲ or ▼ to `Radio Info` and press ⊞ to select.

4 ▲ or ▼ to `My ID` and press ⊞ to select.

The first line of the display shows the radio alias. The second line of the display shows the radio ID.

Checking the Firmware Version and Codeplug Version

Displays the firmware version on your radio.

1 to access the menu.

2 or to Utilities and press to select.

3 or to Radio Info and press to select.

4 or to Versions and press to select.

The display shows the current firmware and codeplug versions.

Checking the Open-Source Software Information

Displays the open-source software (OSS) information on your radio.

1 to access the menu.

2 or to Utilities and press to select.

3 or to Radio Info and press to select.

4 or to Versions and press to select.

The display shows the Firmware Version information.

Software Update

Displays the date and time of the latest software update carried out via Over-the-Air Programming.

Note: Software Update menu is only available after at least one successful OTAP session.

1 to access the menu.

2 or to Utilities and press to select.

3 or to Radio Info and press to select.

4 or to SW Update and press to select.

The display shows the date and time of the latest software update.

See **Over-the-Air-Programming (OTAP)** on page 105 *for details on OTAP session.*

Site Information

Displays the current Linked Capacity Plus site name your radio is on.

1 to access the menu.

2 or to Utilities and press to select.

3 or to Radio Info and press to select.

4 or to Site Info and press to select.

The display shows the current Linked Capacity Plus site name.

See **Linked Capacity Plus** on page 20 *for details on Linked Capacity Plus*.

RSSI Values

Your radio shows the Received Signal Strength Indicator (RSSI) icon at the top of your display. This feature allows you to view the RSSI values.

On the home screen, press three times and immediately press , all within 5 seconds.

The display shows current RSSI values. Long press the to return to the Home Screen.

See **Display Icons** on page 21 *for details on RSSI icon.*

Accessories

The following topics are covered:

♦ Antennas 126
♦ Audio Accessories 126
♦ Batteries 126
♦ Bluetooth 126
♦ Cables 127
♦ Carry Devices 127
♦ Chargers 127
♦ Miscellaneous Accessories 127

Antennas

- 420 – 445 MHz Stubby Antenna, (PMAE4076_)
- 438 – 470 MHz Stubby Antenna, (PMAE4077_)
- 403 – 425 MHz Stubby Antenna, (PMAE4078_)
- 896 – 941 MHz Stubby Antenna (85012072001)

Audio Accessories

- Surveillance Earpiece with in-line microphone and PTT (PMLN5957_)
- Swivel Earpiece with in-line microphone and PTT (PMLN5958_)

Batteries

- Lithium-Ion 1800 mAH Battery Pack (HKNN4013_)
- Lithium-Ion 1370 mAH Battery Pack (PMNN4425_) [1]

Bluetooth

- HK200 Bluetooth Headset (US) (89409_)
- Operations Critical Wireless Earpiece with 12 inch cable (US) (NNTN8125_)
- Operations Critical Wireless Earpiece with 9.5 inch cable (US) (NNTN8126_)
- Operations Critical Wireless Push-To-Talk POD (US) (NNTN8127_)

[1] *Not applicable to the 800/900 band.*

Cables

- Micro USB Programming Cable (25-124330-01R)

Carry Devices

- Carry Holder (PMLN5956_)
- Wrist Strap (PMLN6074_)

Chargers

- Multi-Unit Charger, US Plug (PMLN5916_)
- Micro USB Charger, US Plug (PMPN4009_)
- Micro USB Single-Unit Plug-In Charger (SPN5547_)

Miscellaneous Accessories

- 1370 mAH Battery Cover (PMLN6000_)
- 1800 mAH Battery Cover (PMLN6001_)

Batteries and Chargers Warranty

The Workmanship Warranty

The workmanship warranty guarantees against defects in workmanship under normal use and service.

All MOTOTRBO Batteries	Two (2) Years
IMPRES Chargers (Single-Unit and Multi-Unit, Non-Display)	Two (2) Years
IMPRES Chargers (Multi-Unit with Display)	One (1) Year

The Capacity Warranty

The capacity warranty guarantees 80% of the rated capacity for the warranty duration.

Nickel Metal-Hydride (NiMH) or Lithium-Ion (Li-Ion) Batteries	12 Months
IMPRES Batteries, When Used Exclusively with IMPRES Chargers	18 Months

Limited Warranty

MOTOROLA COMMUNICATION PRODUCTS

I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

MOTOROLA SOLUTIONS, INC. (“MOTOROLA”) warrants the MOTOROLA manufactured Communication Products listed below (“Product”) against defects in material and workmanship under normal use and service for a period of time from the date of purchase as scheduled below:

SL Series Digital Portable Radios	Two (2) Years
Product Accessories (Excluding Batteries and Chargers)	One (1) Year

MOTOROLA, at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it (with a new or reconditioned Product), or refund the purchase price of the Product during the warranty period provided it is returned in accordance with the terms of this warranty. Replaced parts or boards are warranted for the balance of the original applicable warranty period. All replaced parts of Product shall become the property of MOTOROLA.

This express limited warranty is extended by MOTOROLA to the original end user purchaser only and is not assignable or transferable to any other party. This is the complete warranty

for the Product manufactured by MOTOROLA. MOTOROLA assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of MOTOROLA.

Unless made in a separate agreement between MOTOROLA and the original end user purchaser, MOTOROLA does not warrant the installation, maintenance or service of the Product.

MOTOROLA cannot be responsible in any way for any ancillary equipment not furnished by MOTOROLA which is attached to or used in connection with the Product, or for operation of the Product with any ancillary equipment, and all such equipment is expressly excluded from this warranty. Because each system which may use the Product is unique, MOTOROLA disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

II. GENERAL PROVISIONS:

This warranty sets forth the full extent of MOTOROLA'S responsibilities regarding the Product. Repair, replacement or refund of the purchase price, at MOTOROLA's option, is the exclusive remedy. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.

III. STATE LAW RIGHTS:

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY.

This warranty gives specific legal rights, and there may be other rights which may vary from state to state.

IV. HOW TO GET WARRANTY SERVICE:

You must provide proof of purchase (bearing the date of purchase and Product item serial number) in order to receive warranty service and, also, deliver or send the Product item, transportation and insurance prepaid, to an authorized warranty service location. Warranty service will be provided by MOTOROLA through one of its authorized warranty service locations. If you first contact the company which sold you the Product (e.g., dealer or communication service provider), it can facilitate your obtaining warranty service. You can also call MOTOROLA at 1-800-927-2744 US/Canada.

V. WHAT THIS WARRANTY DOES NOT COVER:

1. Defects or damage resulting from use of the Product in other than its normal and customary manner.
2. Defects or damage from misuse, accident, water, or neglect.
3. Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.
4. Breakage or damage to antennas unless caused directly by defects in material workmanship.
5. A Product subjected to unauthorized Product modifications, disassembles or repairs (including, without limitation, the addition to the Product of non-MOTOROLA supplied equipment) which adversely affect performance of the Product or interfere with MOTOROLA's normal warranty inspection and testing of the Product to verify any warranty claim.
6. Product which has had the serial number removed or made illegible.
7. Rechargeable batteries if:
   a. any of the seals on the battery enclosure of cells are broken or show evidence of tampering.
   b. the damage or defect is caused by charging or using the battery in equipment or service other than the Product for which it is specified.
8. Freight costs to the repair depot.
9. A Product which, due to illegal or unauthorized alteration of the software/firmware in the Product, does not function in accordance with MOTOROLA's published specifications or the FCC certification labeling in effect for the Product at the time the Product was initially distributed from MOTOROLA.
10. Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.
11. Normal and customary wear and tear.

VI. PATENT AND SOFTWARE PROVISIONS:

MOTOROLA will defend, at its own expense, any suit brought against the end user purchaser to the extent that it is based on a claim that the Product or parts infringe a United States patent, and MOTOROLA will pay those costs and damages finally awarded against the end user purchaser in any such suit which are attributable to any such claim, but such defense and payments are conditioned on the following:

1. that MOTOROLA will be notified promptly in writing by such purchaser of any notice of such claim,
2. that MOTOROLA will have sole control of the defense of such suit and all negotiations for its settlement or compromise, and
3. should the Product or parts become, or in MOTOROLA's opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit MOTOROLA, at its option and expense, either to procure for such purchaser the right to continue using

the Product or parts or to replace or modify the same so that it becomes non-infringing or to grant such purchaser a credit for the Product or parts as depreciated and accept its return. The depreciation will be an equal amount per year over the lifetime of the Product or parts as established by MOTOROLA.

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VII. GOVERNING LAW:

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